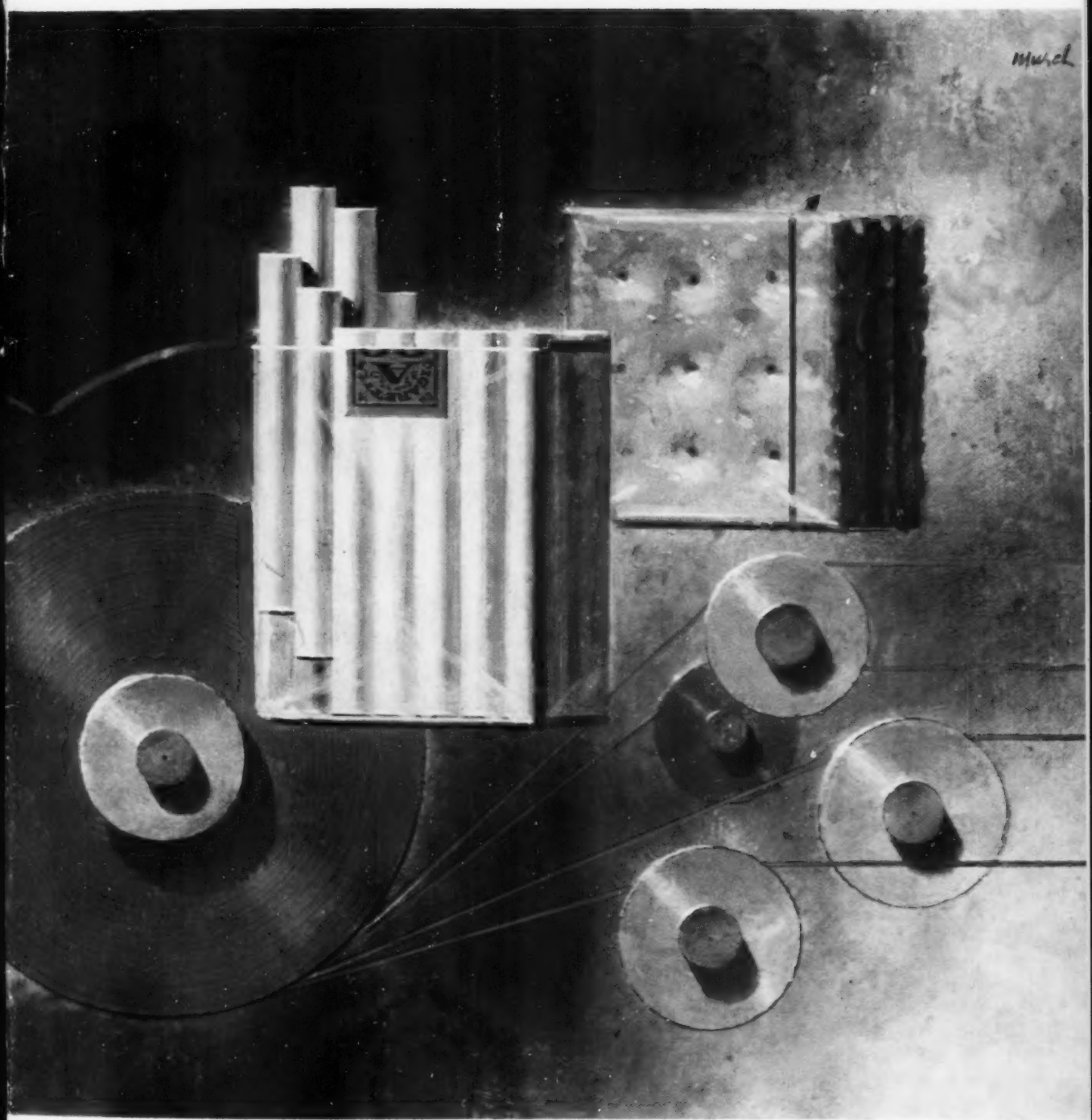
MODERN PACKAGING



AN ORIGINAL OIL PAINTING FOR MODERN PACKAGING BY WALTER MURCH

GREAT PACKAGING DISCOVERIES: *The tear tape—p. 90*

Sounding Board, p. 53 | *Background for Packaging, p. 37* | *Cost Cutters, p. 106*

JULY 1959

Complete contents, pp. 23

NOW! INSTANT BONDS ON IMPERVIOUS SURFACES

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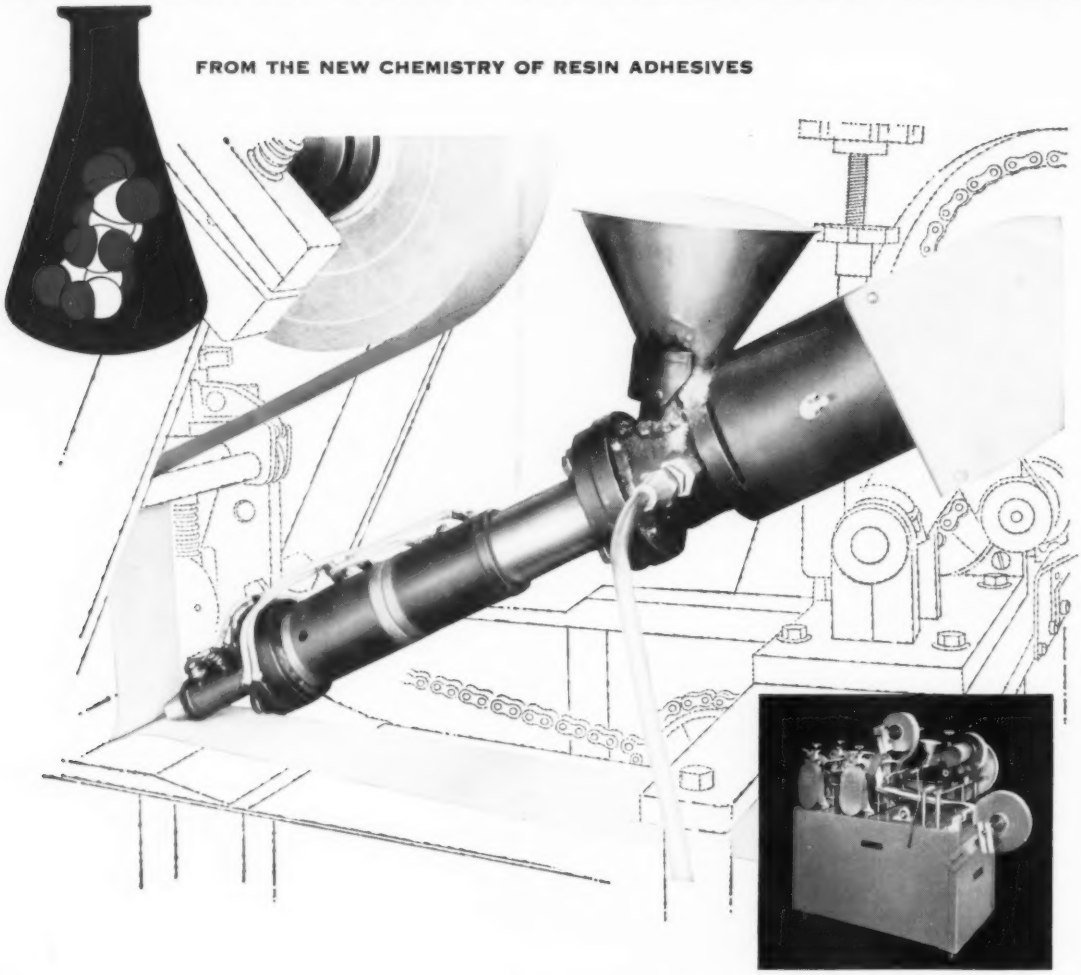

Instant-Lok GRANULAR HOT MELTS

A spectacular advance for packaging! An instant bonding, 100% solids, resin adhesive for polyethylene, foil, wet strength kraft and other tough stocks. For unlimited machine speeds. Any stock. Immediately available with National's INSTANT-LOK Granular Hot Melts and the new INSTANT-LOK Applicator shown above on a demonstration model.

INSTANT-LOK HOT MELTS extrude into a thin, continuous, instant bonding glue line. No compression is required. They are the lowest cost form of adhesives—100% solids. Your only cost is for adhesives. No water. No mixing or preparation. Available in a range of formulations to meet any bonding requirements.

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INSTANT-LOK BONDS are suggested for bag seaming, carton sealing and forming, tube winding, and other converting operations. We're ready to work with you right now!

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Quality Control
PACKAGING

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by GOODYEAR

Vitafilm, a Polyvinyl chloride—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

JULY 1959 VOL. 32 NO. 11

IN THIS ISSUE

77 **New depth in quality control**

Rigid quality standards throughout the packaging process are today as essential as product quality itself. Marketing-wise manufacturers are aware of this fact: As complex packaging operations become commonplace, as sensitive new packaging materials vie with established types and as the play for consumer approval grows more critical, success depends largely on eliminating in advance packaging flaws that shut down a line, increase rejection rates or scare off repeat customers. To guarantee package performance, such companies use statistical tools to reduce defects, cooperate with suppliers in personnel-training programs and spell out specifications for package function and appearance.

81 **Fine screen plus wet strength**

Canada Dry's adoption of seven-color rotogravure-printed six-bottle packs marks a breakthrough in fine-screen, full-color printing on multitrip soft-drink bottle carriers. Fine printing has been limited in the soft-drink industry because of the unavailability of board that would stand multiple delivery in open trucks and also take gravure process engravings. This packager's lightweight containers are made of durable, wet-strength resin-laminated board of two-ply construction.

Special interest: foods, beverages.

82 **Anti-rust polyester pouch**

In a packaging advance that is expected to appeal to many packagers of rust-susceptible metal products, Lufkin Rule Co. is using polyester film pouches with an interior coating of volatile corrosion inhibitor to protect and display steel micrometers. The new coated material simplifies packaging operations by eliminating a laborious hand-wrapping procedure formerly required.

Special interest: hardware, appliances.

86 **How to get color with economy**

At a cost increase of only 2%, Elder & Jenks has achieved a new line of slide-track thermoform packages for paint brushes whose point-of-purchase appeal is reflected in a positive sales upturn. Packagers looking for colorful array without the expense of multicolor printing can adapt an economical procedure being used by this company.

Special interest: household goods, hardware.

89 **New machines at Europak**

American visitors to the big Dutch packaging show in Amsterdam saw significant developments in machinery for overwrapping, filling, cartoning and vacuum packaging. Peak interest was shown in a semi-automatic overwrapper for film that bridges the gap between high-speed automatic machines and wrapping by hand.

90 **The tear tape**

A *Great Packaging Discovery*. When the late William Wrigley, Jr., demanded a "can opener" to remove the cellophane wrap from a pack of stick chewing gum in 1931, he triggered a development that now is the key to the easy opening of 85 million packages a day. The colorful cellophane tear tape with starting tab devised by Wrigley packaging men also opened new markets for a then-infant packaging material: moistureproof cellophane. This basic opening principle—with varying materials and techniques—has been extended even to giant shipping cases. And the science that inspired it is being put to work to solve the opening problems of newer, tougher films.

SPECIAL FEATURES

37 **Background for Packaging**
Notes, quotes and comments on significant news.

53 **Sounding Board**
Question of the Month: In your operation, what has proved to be the best packaging-line layout and line shape—and why?

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106 **Cost Cutters**
Techniques for reducing the costs of packaging.

MODERN PACKAGING, Executive and Editorial Offices, 575 Madison Ave., New York 22, N.Y. Phone PLaza 9-2710

Please mail all correspondence, change of address notices, subscription orders, etc., to the above address. Quotations on bulk reprints of articles appearing in this issue are available on request.

OF MODERN PACKAGING®

92 **Crisis: the new food law—3**
The increasing concern being shown by packagers over the controversial new Food Additives Amendment to the Food, Drug and Cosmetic Act is reflected in this third article in a series. Readers have questioned MODERN PACKAGING editors on the administration of the regulation and on the fate of important packaging materials. Twenty-five of these questions, with broad interest to all food packers, have been posed to John L. Harvey, Deputy Commissioner of the Food & Drug Administration. His recorded answers reveal how much authority the F&DA has in judging the qualifications of technical experts and in deciding whether or not a chemical is a food additive.
Special interest: foods, drugs.

98 **Cost cutting on a pencil line**
Dixon keeps its wooden lead pencils competitive in the ball-point era with new improvements in package construction and mechanical efficiency. Among them is an economical, single-piece folding carton that cuts packaging cost by 20%, replaces four packaging machines with one and replaces five pre-printed cartons with a single container that is imprinted right on the packaging machine.
Special interest: supermarkets, hardware.

102 **Signal-flag shipping cases**
To help handlers distinguish at a glance the 42 products sold under its brand name, Jell-O has adopted a starkly simple identification system for corrugated shipping containers. In this trend reversal, the redesigned shippers carry nothing but a straightforward presentation of essential information in large lettering. The idea is to speed operations in warehouses and back rooms, to cut overhead and to reduce out-of-stock situations.

104 **Popcorn in polystyrene**
A rigid container that should appeal to packagers of many food products requiring moisture protection and visibility is the biaxially-oriented-polystyrene tray and cover for Veri-Fine Foods' caramel popcorn. On a new semi-automatic machine, the package lid is heat sealed with a serrated edge for maximum resistance to water-vapor transmission.
Special interest: foods, dry products.

108 **To train a packaging engineer**
A three-part program of company indoctrination, supplier plant tours and seminars is in use at Squibb to turn young industrial engineers into knowledgeable packaging technologists. To packaging directors, this project should suggest a solution to several common problems.

TECHNICAL & ENGINEERING

113 **Extractability testing**
A key to compliance with the new Food Additives Amendment is use of proper laboratory methods for establishing the extractability of chemicals from packaging materials. Here is an authoritative guide to such methods, which sets forth general requisites of extraction procedures and the experimental conditions for determining the extractability of some types of materials.

116 **Polymer-coated polystyrene**
Wider food-packaging horizons have been opened up for biaxially oriented polystyrene film and sheet through the addition of a 0.1-mil polymer coating that solves many problems inherent in the material. The non-fogging coating decreases water-vapor and gas transmission rates and improves abrasion resistance. In addition, it provides a lower coefficient of friction, which adapts the plastic to use in high-speed packaging machinery.
By H. A. Scopp and S. Black.

120 **Questions & Answers**
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How to get bubble pack sales appeal at less cost

If you like the bubble pack idea here's a suggestion to reduce the cost.

Try stapling. Operators need no special training or skill and investment is small.

In the Bostitch bubble pack shown at the right the bubble projects through a folded die-cut card. The card is fastened together around the cut-out with five Bostitch staples, resulting in an attractive, secure package glistening with sales appeal.

If you would like to investigate this method of packaging for your products, or if you are interested in other types of carding, get in touch with your Bostitch Economy Man. He is one of over 300 who work out of 123 U.S. and Canadian cities. To call him, look under "Bostitch" in your phone book or write direct to Bostitch, 487 Briggs Drive, East Greenwich, Rhode Island.

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The Mock Seed Company markets wild bird seed in Dobeckmun polyethylene packages. Says Mock, "In snowy, wintery weather, this package holds the same appeal for customers as the contents do for our feathered friends."

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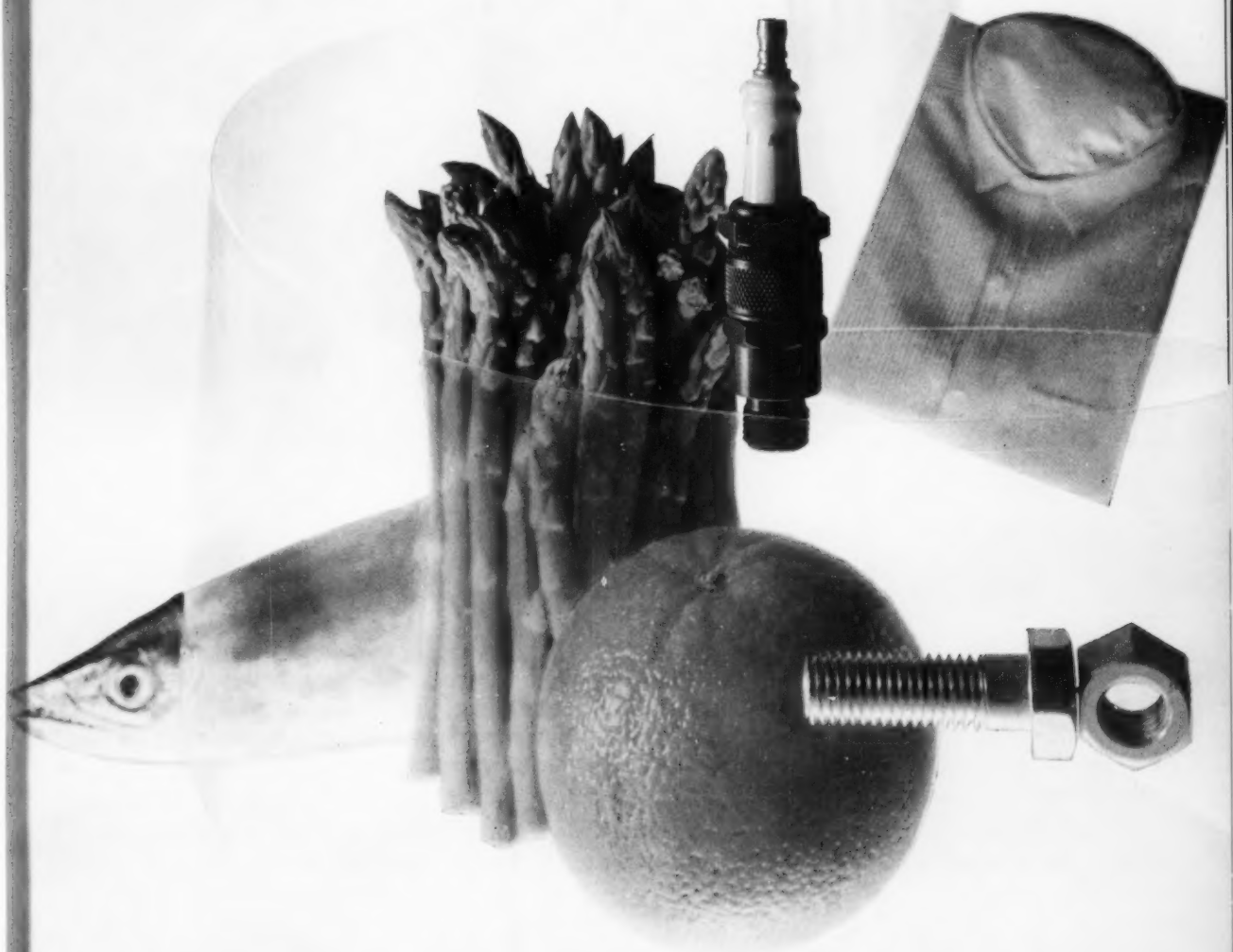

Polyethylene: Hardware, soft goods and foodstuffs—all this vast variety of products are favored with the eye-catching protective qualities of Dobeckmun polyethylene packaging. Make light work of loading and fast work of moving goods with heat-sealing, non-blocking polyethylene of superior transparency, engineered for Dobeckmun packages for performance.

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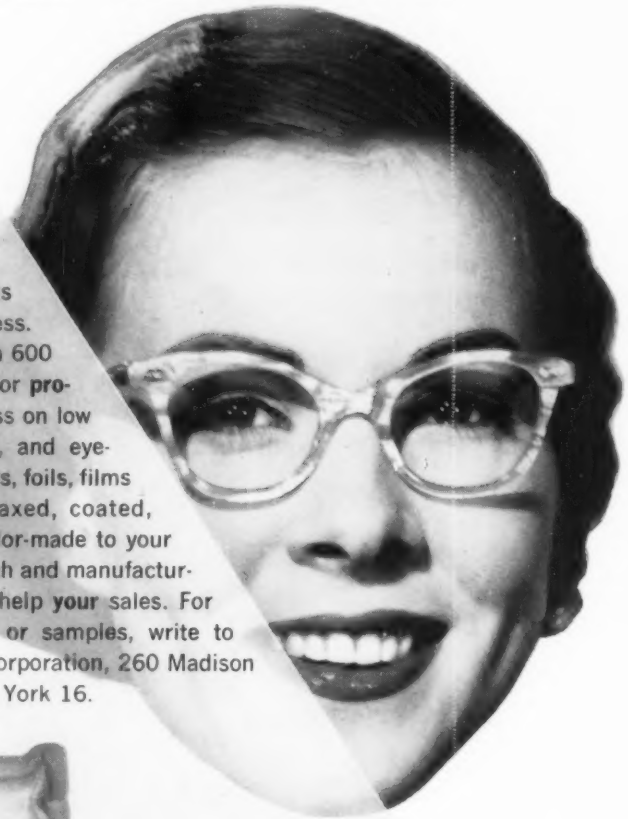

Faith in the quality of a product will bring your customers back again and again. In keeping that faith, your package must play a vital role.

Product protection that never lets the customer down is Riegel's business. We offer you a choice of more than 600 different materials . . . designed for **protection first** . . . with equal stress on low cost, high packaging speed, and eye-catching appearance. Papers, foils, films and combinations . . . waxed, coated, printed, or plain . . . tailor-made to your needs. Riegel research and manufacturing versatility can help **your** sales. For technical advice or samples, write to Riegel Paper Corporation, 260 Madison Avenue, New York 16.

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All these products go to market dressed in the finest . . . Canco's famous Aerosol Containers!

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Armstrong PACKAGING

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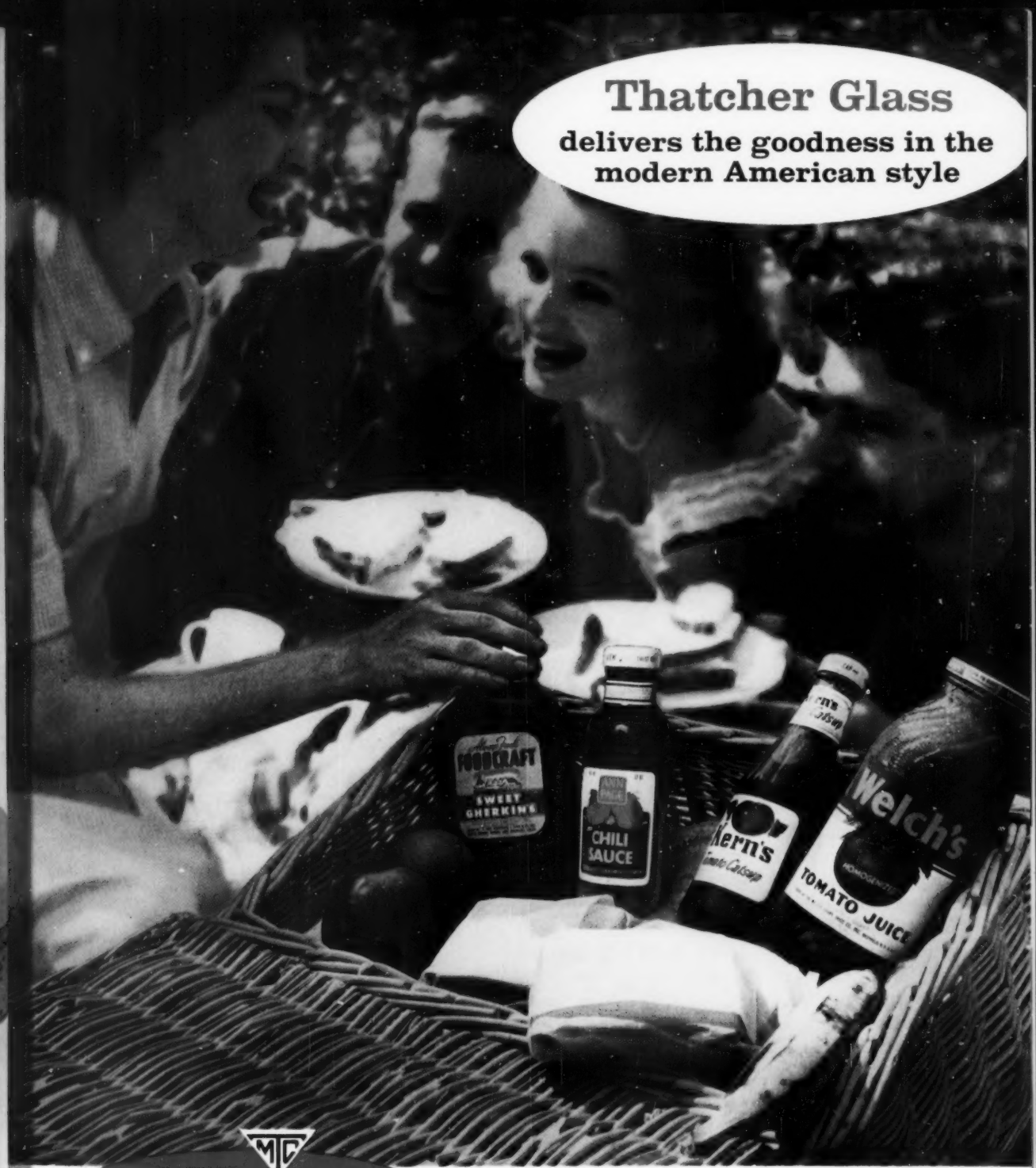

Thatcher Glass

There's probably nothing more "American" than a picnic . . . and nothing suits the occasion better than food in glass containers. Everybody knows that it's safe to store just about any kind of food in glass . . . open it, use as much as you need, and simply put the cap back on until next time.

You'll find the country's leading labels on jars and bottles that carry the Thatcher trademark. These firms have discovered that Thatcher service is unsurpassed and that Thatcher glass containers are manufactured to a strict standard of quality. The Thatcher representative will gladly discuss your packaging requirements at any time.

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Colgate-Palmolive entrusts its sales leaders to

REYNOLDS WRAP ALUMINUM PACKAGING

The Colgate-Palmolive Company carries ever forward its long history of sales success with Reynolds Wrap Aluminum Packaging. First came AJAX...spectacular triumph! Then PALMOLIVE SOAP burst forth in gleaming beauty...followed by CASHMERE-BOUQUET. And the latest is FAB, shining out in all its sizes.

Here are very different forms of foil packaging, to accomplish specific functions. The AJAX wrap-around label has not only dominant visibility and massive brand-name impact ...it also provides the moisture protection important to a foaming-type cleanser. The PALMOLIVE and CASHMERE-BOUQUET wraps not only make these soaps beautiful bathroom accessories...they also retain fragrance and prevent drying out. And FAB'S aluminum foil folding carton is a big example of protection plus display power...a gleaming promise of "no caking" even in wet surroundings.

These different items all demonstrate the "New Economics" of Reynolds Wrap Aluminum Packaging...its low *relative* cost compared with all other marketing factors... the greater-than-ever yield on investment. No wonder other Colgate-Palmolive products join the foil procession: HALO and VEL! For more information, including details of the new consumer study "The Image of Aluminum Foil," call any Reynolds sales office. Or write to **Reynolds Metals Company,** Richmond 18, Virginia.

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...that's what this Seal gives you. Extra assurance of quality! Surveys show 8 out of 10 women know this Seal, 7 out of 10 of these prefer products carrying it. And more and more products do!

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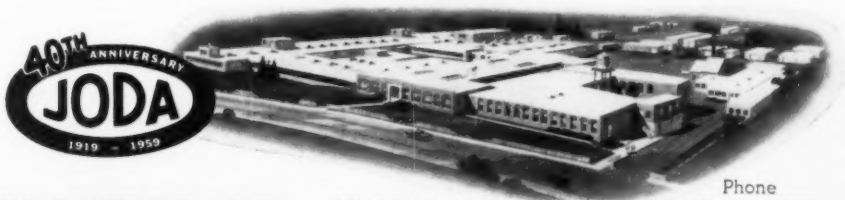

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goes customer shopping in a Cellu-craft suit

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We're so proud of this creative packaging accomplishment, we'd like to send you with our compliments four bars of new pink Swan soap dressed up to go customer shopping. Phone or write Cellu-Craft.

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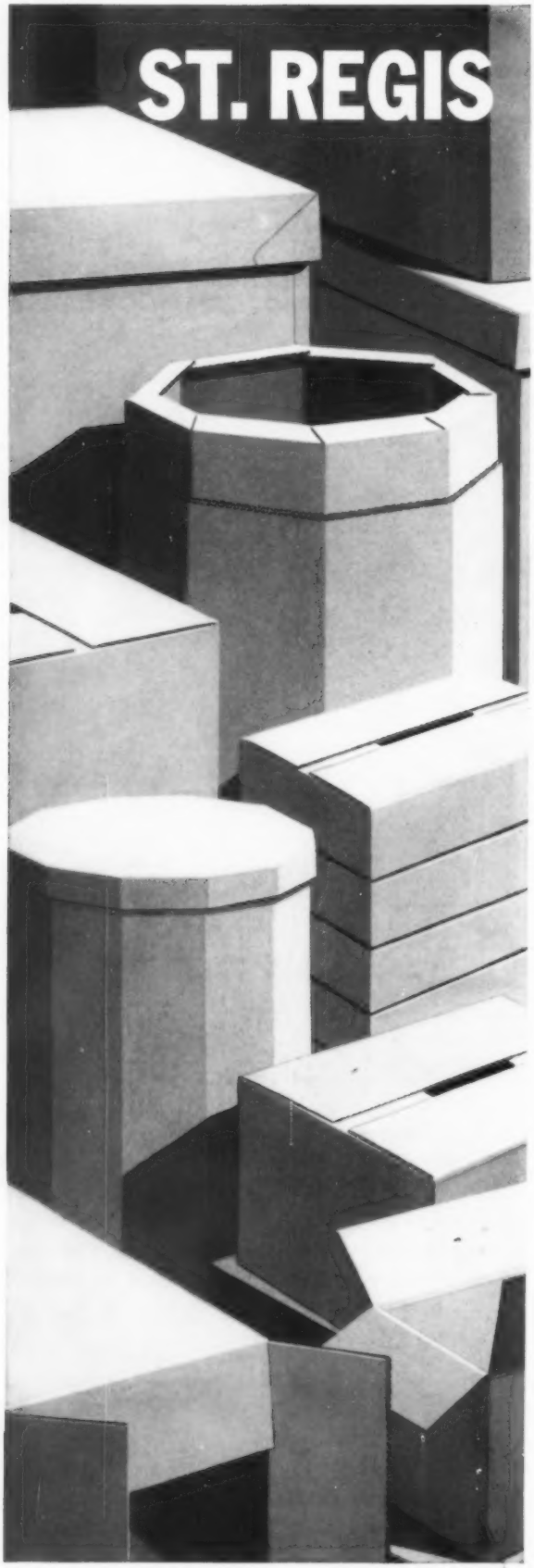

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NEW DESIGNS IN MARLEX

PLAX selects MARLEX* for new, featherweight 1-gallon plastic bottle

- Saves weight . . . 2½ lbs. lighter than glass jugs of equal volume!
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The most exciting new container in the field of bulk liquids shipment is this unique, square 1-gallon bottle, blow-molded from MARLEX by PLAX Corp., Hartford, Connecticut.

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This new PLAX "gallon" is suitable for a wide variety of liquids, including: **shampoo, vanilla extract, pool chlorifiers, defoliant, paint primer solvent, arsenic acid, hydrofluoric acid, sulfuric acid, muriatic acid, hydrochloric acid, disinfectants, cleaning agents, and windshield washer fluid.** The U. S. Public Health Service has adopted it for shipment of pharmaceuticals.

If you are packaging with molded containers, transparent film or blown bottles, you should know more about MARLEX. Write for new technical brochure today!

*MARLEX is a trademark for Phillips family of olefin polymers.

PHILLIPS CHEMICAL COMPANY, Bartlesville, Oklahoma

A subsidiary of Phillips Petroleum Company

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LIBERTY
IN GOD WE TRUST
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UNITED STATES OF AMERICA
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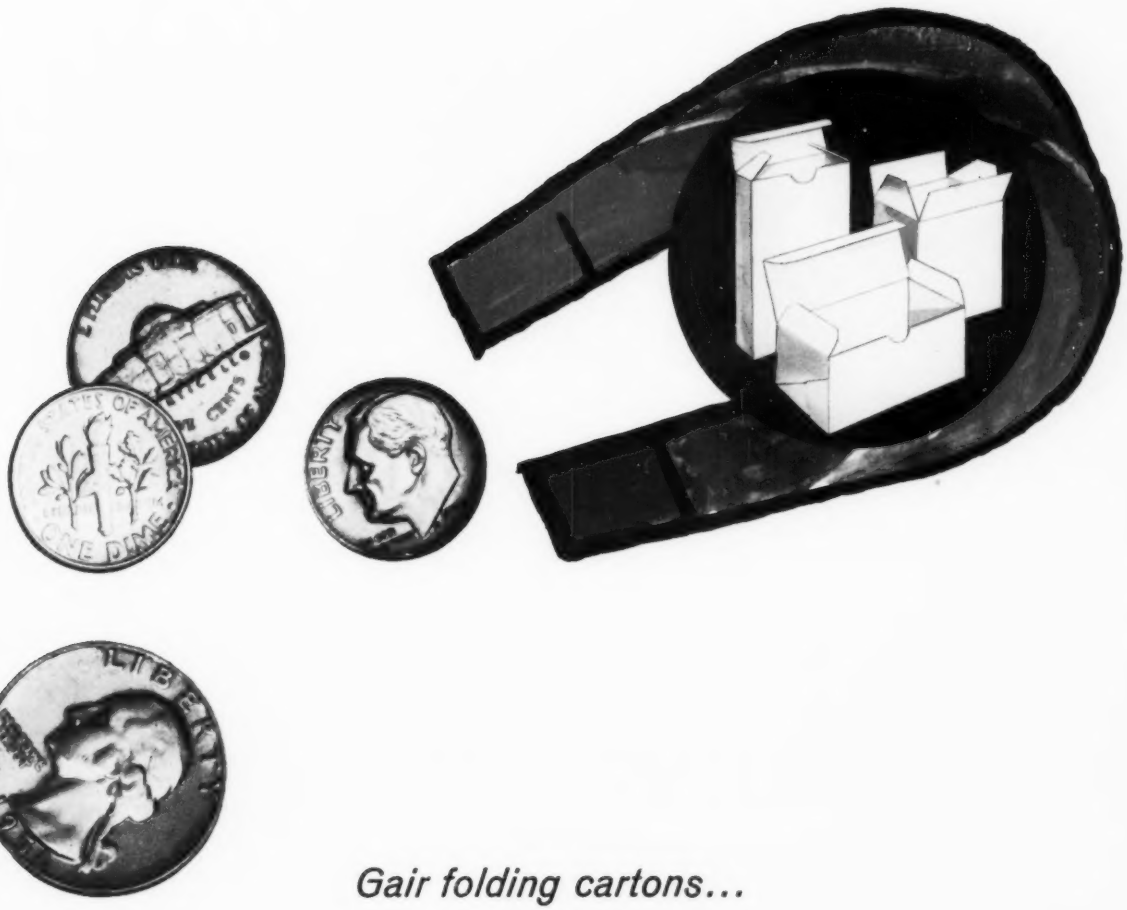

Gair folding cartons...

make your product the big attraction in every market!

When it comes to your customers—make a good first impression that lasts! And when you use Gair cartons, here's what goes to work for you: All of Gair's integrated services, including unparalleled research, vast timberlands, board and fabricating mills, and of course the most modern graphic and functional design facilities in the industry. *Buy the carton that's the big magnet in your market—call on Gair today!*

GAIR BOXBOARD & FOLDING CARTON DIVISION

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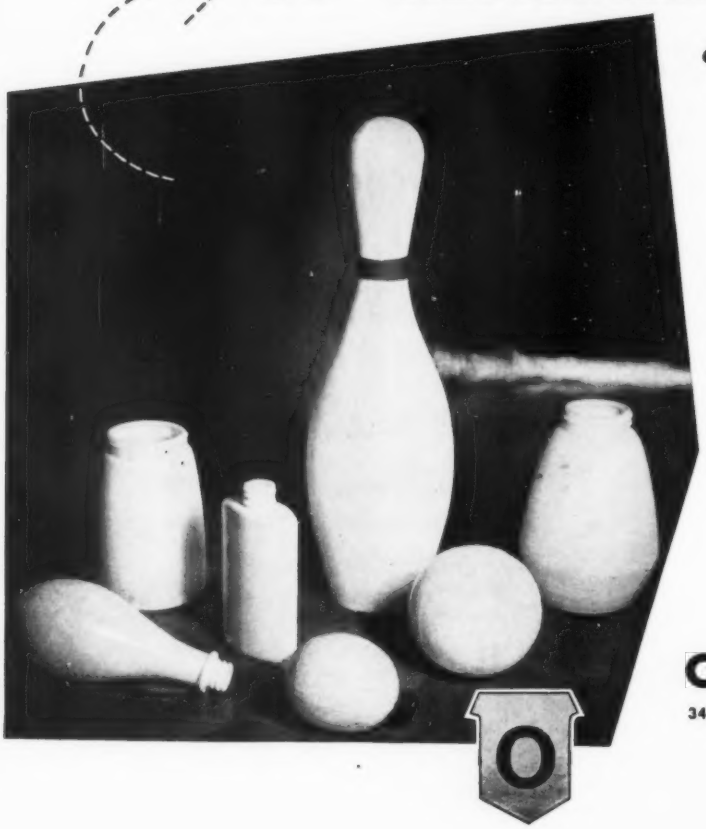
CONVENTIONAL...

or unusual-



OUR BUSINESS IS PLASTIC BOTTLES

. . . and we have a wide variety of standard shapes, sizes and colors in stock. Or your product can have a special package design made exclusively for you at very low cost. Now, four-color decoration on your plastic bottles is available from our own offset presses. We invite your inquiries for any size bottle.

OLYMPIC PLASTICS

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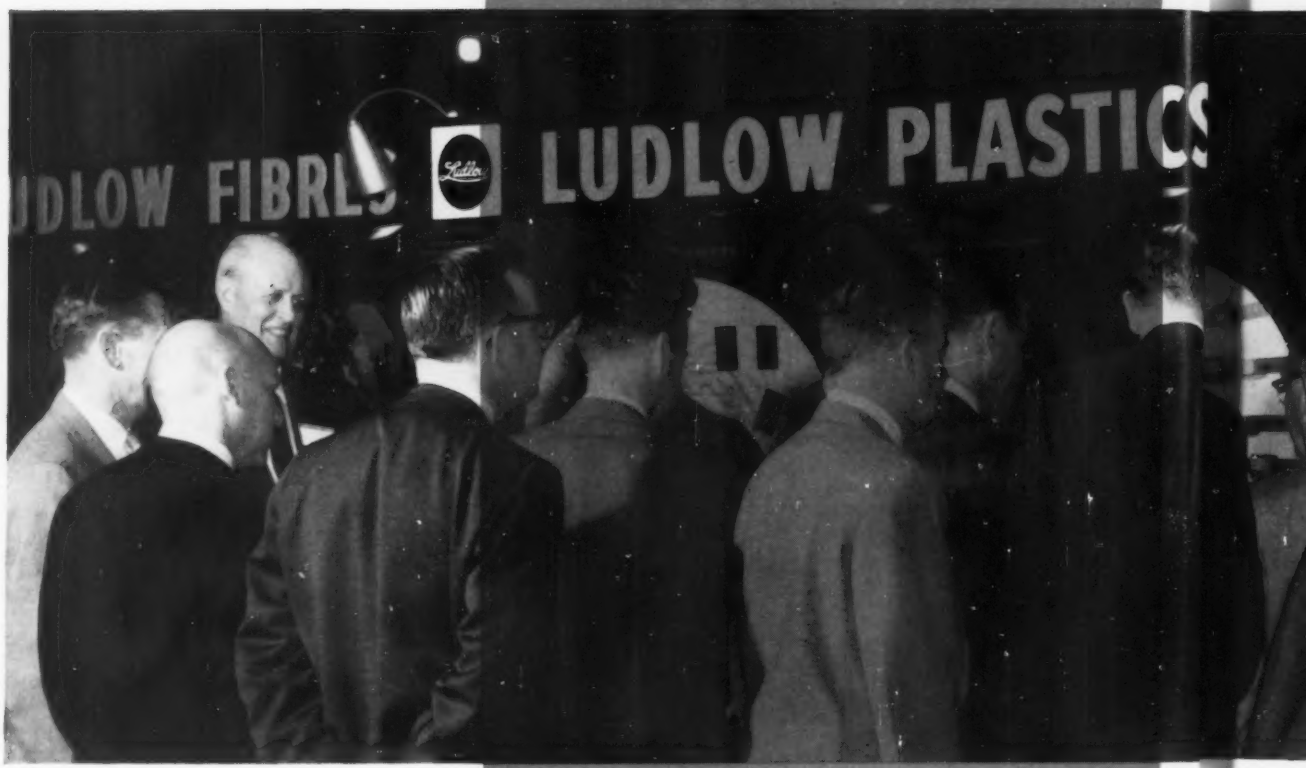
4. Have outstanding moisture resistance.
5. More than pass all accepted scratch, crinkle and pressure sensitive tape tests, initially and after aging!
6. Have high block resistance.
7. Can be used with natural rubber plates and rollers.
8. Are available in a full range of rich, high-gloss colors.

These new inks are the result of intensive IPI research into the problems inherent in printing polymer-coated cellophanes, plus thorough field-testing on commercial work. We invite you to try them on your own equipment so you can see the difference. Just call the man from IPI!

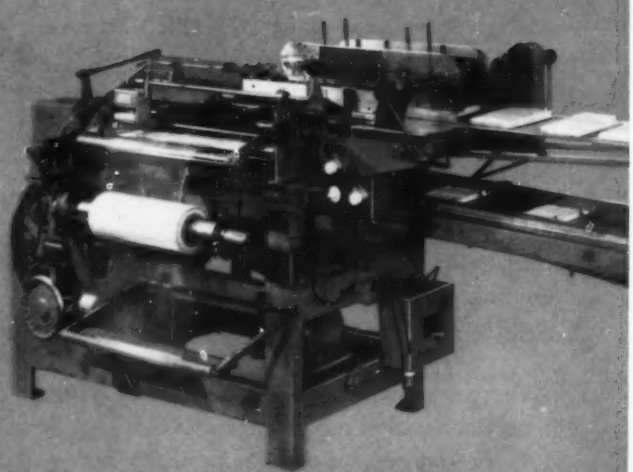
INTERCHEMICAL • PRINTING INK

CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.



Couldn't see it at the Show?



METAPLENE was successfully demonstrated as a hosiery package overwrap (size 7″ x 8″ x ½″) on a Hayssen 82-L packaging machine.

Other new Ludlow Films:

PARAPLENE — high-density polyethylene

ORTHOPLENE — low-density polyethylene

PROPLENE — made from polypropylene resin

CAPLENE — made from nylon-6

These films are also available in combination with paper, foil, cloth or other films.

METAPLENE* Sparkles in Machine Demonstration

One of the star performers in the AMA Packaging Exposition this year was METAPLENE, Ludlow's versatile new medium-density polyethylene film. Demonstrated on a Hayssen wrapping machine, METAPLENE displayed a balance of stiffness and flexibility that results in tighter fitting, better looking, longer lasting overwraps. It performs equally well on bag and pouch making equipment and the products it can package range from textiles to toys.

METAPLENE has unusual sparkle and clarity . . . the magic ingredients that add extra sales appeal to your product. But there's *more* to METAPLENE than meets the eye. Its tensile strength, for instance, is much greater than that of ordinary polyethylene. METAPLENE protects your product from vapors, gases, greases, oils and odors. It's easily heat-sealed, too, through temperatures from 250 to 325°F.

Shelf life? It's greater than cellophane's . . . Cost? It's *lower* than cellophane's. And METAPLENE gives you the cleanest, sharpest printing you ever saw. Want *more* facts? Send today for samples and technical data on METAPLENE and other new plastics made from Ludlow's exclusive new cast film process.

* Trademark Ludlow Papers, Inc.

LUDLOW PLASTICS

NEEDHAM HEIGHTS 94, MASSACHUSETTS

Ludlow Plastics is a division of LUDLOW PAPERS, INC., manufacturers of fine papers, gummed label papers, gummed tapes, building papers and packaging papers. Ludlow Papers, Inc., is a subsidiary of Ludlow Manufacturing & Sales Company, manufacturers of jute and jute products.

CLEVELAND CONTAINERS

are *Attractive* and USEFUL

They have eye appeal and provide product protection at low cost. Illustrated are containers of unusual design and construction.

The attractive cutlery container, shown above, has a colorful exterior and shining metal ends. Sturdy wall construction assures long usage. After serving as a package for cutlery, it becomes a convenient knitting carry-all. Reinforced eyelets in the top prevent the yarn from snagging.

Functionally designed, the unique weiner fork container, at the left, also has a dual purpose. With a simple pumping motion, this telescoping fork package can be used as a bellows in starting your barbecue fire.

Special purpose packages are a matter of course to our engineers. Sifters, shakers, pouring spouts . . . choice of liners . . . labels or wrappers . . . are available to meet any particular problem.

Why pay more? For quality products . . . call CLEVELAND!

These two containers each serve a dual purpose.

• • •

Write for a copy of our Packaging Brochure.

INVESTIGATE THE

Complete Line

of CLEVELAND CONTAINERS

PLANTS & SALES OFFICES: CLEVELAND, DETROIT, CHICAGO, MEMPHIS, LOS ANGELES, PLYMOUTH, WIS., JAMESBURG, N. J., FAIR LAWN, N. J.

THE CLEVELAND CONTAINER CO.

6201 BARBERTON AVE. • CLEVELAND 2, OHIO

ALL-FIBRE CANS • COMBINATION METAL AND PAPER CANS • SPIRALLY WOUND TUBES AND CORES FOR ALL PURPOSES.

CLEVELAND CONTAINER CANADA, LTD.

Plants and Sales Offices: TORONTO AND PRESCOTT, ONT. Sales Office: MONTREAL

SALES OFFICES: NEW YORK CITY, WASHINGTON, D. C., ROCHESTER, N. Y., WEST HARTFORD, CONN. • ABRASIVE DIVISION AT CLEVELAND

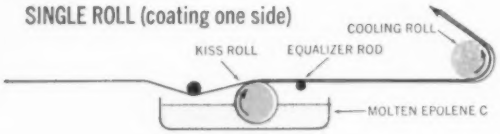

TWIST


A GOOD MAN ON YOUR TEAM
Trained in practical packaging, the Anchor Hocking representative is a good man to consult with on glass packaging questions. He has helped others achieve greater efficiency, greater economy or better glass packaging results... and he is just as ready to be of service to you. If he does not have the answer at his finger tips, he has at his disposal Anchor Hocking's Package Engineering and Research Laboratories as well as Package Design Service. With the wide variety of quality-controlled containers and closures at the Anchor Man's command, you can depend upon his recommendations being well considered, impartial and in your best interest. Anchor Hocking Glass Corporation, Lancaster, Ohio.
ANCHOR HOCKING
Put an Anchor Man on your team

You can apply Epolene C
EASTMAN LOW-MELT POLYETHYLENE
directly to paper using melt-coating equipment

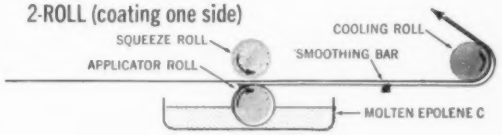
Here are 4 typical melt-coating systems modified to handle Epolene C

SINGLE ROLL (coating one side)



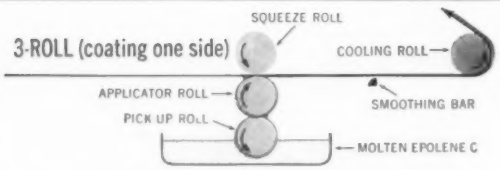
Epolene C applied by single kiss roll. Sufficient heat must be supplied to kiss roll and melt to maintain temperature at 300-325°F. Excess removed by equalizer rod. Water cooled roll sets the Epolene C coating prior to rewind.

2-ROLL (coating one side)



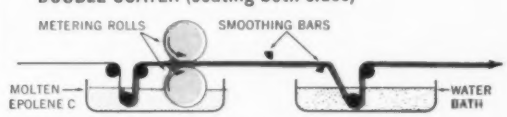
Epolene C metered onto paper between applicator roll and hard rubber squeeze roll. Coating levelled by smoothing bar. Sufficient heat must be supplied to applicator roll, melt and smoothing bar to maintain temperatures at 300-325°F. Water cooled roll sets coating prior to rewind.

3-ROLL (coating one side)



Epolene C transferred from pick-up roll to applicator roll and metered onto paper between applicator roll and hard rubber squeeze roll. Coating levelled with smoothing bar. Sufficient heat must be supplied to pick-up roll, applicator roll, melt and smoothing bar to hold temperatures at 300-325°F. Water cooled roll sets coating prior to rewind. System provides best thickness control at high speed.

DOUBLE COATER (coating both sides)



Paper fed through melt. Coating metered between two steel rolls. Two smoothing bars level coating. Sufficient heat must be supplied to metering rolls, melt and smoothing bars to maintain temperatures at 300-325°F. Water bath sets coating prior to rewind. Rapid chilling provides high gloss.

Many paper coaters and converters at the recent National Packaging Exposition saw the ease with which Epolene C, Eastman's low-melt polyethylene, can be applied directly to paper from a hot melt.

The sketches above illustrate how certain types of existing melt-coating equipment can be modified to apply this new kind of polyethylene. In general, such equipment must be adapted to handle molten Epolene C at temperatures of 300-325°F through the use of hot oil or electrical heaters. In addition, a method of cooling the coating before rewinding must be provided.

Hot melt coatings of Epolene C, being fluid, penetrate well and assure good adhesion to paper stock. Incorporation of small amounts of a modifying resin also provides good adhesion to aluminum. Epolene C permits fast heat sealing cycles with short dwell times. Excellent seals have been made face to face and face to back.

Pilot model coaters at Eastman's service laboratory will apply Epolene C to a sample roll of your paper or paper board. For information about this service, and for samples and further information about Epolene C, write Eastman Chemical Products, Inc., subsidiary of Eastman Kodak Company, Kingsport, Tennessee.

Epolene C
EASTMAN LOW-MELT POLYETHYLENE

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Framingham, Mass.; Greensboro, N. C.; Houston; New York City; St. Louis. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle

Sure-Fire Packaging That Keeps Your Powder Dry

If you're aiming for sales in the booming market for hygroscopics . . . arm your products with the sure-fire ammunition of Western-Waxide packaging.

Whether you pack apple sauce or cocoa . . . Instant potatoes or milk, Western-Waxide has facilities and experience to develop and produce packaging that will keep your powders dry.

Our Moistite® bags, constructed of special combinations of polyethylene, foil and paper have cut packaging costs by as much as 42% . . . Pouches with the exclusive convenience of our C-Zip, tear string, open clean and easily . . . our overwraps are printed to stand out like an oasis on the desert.

For case histories and the facts on how others have saved packaging costs and increased sales of hygroscopics, write to Hygroscopic Packaging, 2101 Williams St., San Leandro, Calif. In the East, 4410 Hunt Ave., St. Louis, Mo.

Packaging for all America

CROWN ZELLERBACH WESTERN-WAXIDE DIVISION

In Canada address product inquiries to Crown Zellerbach Canada Limited, Vancouver, B.C.

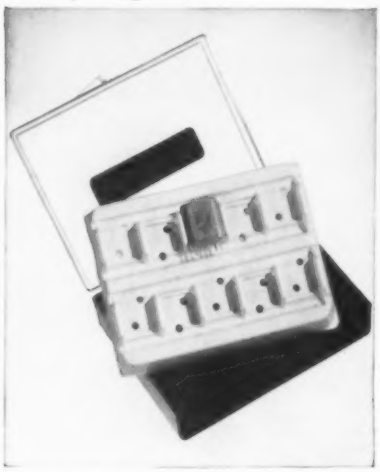
Moistite and C-Zip are trademarks of Crown Zellerbach

CAMPCO PROGRESS

latest developments in plastic sheet • film • fabrication

Campco Styrene Package
gives lock-in protection

Guardian Electric Company was looking for an attractive "shock resistant" package for a new line of miniature relays. Special protection was important because of tiny contact pins and varied shapes. A different package for each type would be costly and cause delay on the packing line.



Plastofilm Inc., of Wheaton, Illinois had the answer with a special formed insert of high impact Campco Styrene sheet. Although the relays have as many as ten different types of connectors, they fit snugly in identical compartments of the insert . . . with lock-in protection from shock.

How is this possible—well the compartments grip the relays by a combination of side walls, channels, grooves and holes. Each is capable of gripping any one of the relays in some way . . . providing ease of handling and filling in assembly and packaging.

Another feature is a see-through lid that allows instant recognition of printed codes on the relays. Packaging in plastic can pay off for you, too. Perhaps Campco Styrene is *your* answer.

One Reliable Source

Now you can fill all your requirements for packaging plastics from one reliable source. Campco now offers Polyethylene, Acetate, Butyrate, Styrenes, Polypropylene, Nylon — in sheets or rolls depending on gauge . . . cut to size if desired . . . clear or colored transparent . . . translucent or opaque. Rolls of clear film in stock for immediate shipment at cost savings.

Double-bubble blister of Campco Butyrate doubles market for small stapling machine

The Wilson-Jones Company wanted to expand its market for small stapling machines, currently being sold through the stationery store. It reasoned that if housewives were exposed to their product in self-service outlets, they'd find them useful for fastening jobs around the house. A package was needed that would be pilfer-proof, capable of delivering its own sales message, and interesting enough to create impulse buying.

Plastofilm Inc. of Wheaton, Illinois delivered the answer with a combination cardboard sheet and plastic blister of Campco Butyrate. The one-piece blister has two bubbles—one for holding the stapler and the other for 1000 staples. The 6x8 inch card is too large for the pocket and the blister designed so that it cannot be pulled away without destroying the card . . . making pilferage difficult. Impulse buyers are enticed by the see-through blister and sold by the printed message of the housewife doing basic fastening jobs.

Without increasing packaging costs, this new design in a very short time more than doubled sales.

Campco Butyrate is extremely strong and pliable. It can be deep formed, patterned and hole punched without shattering or cracking and is easy to decorate. Available in crystal clear or a variety of colors—rolls and sheets in thicknesses .005" to .125" stock or custom size.

Campco Acetate Sells
while it protects

More and more products are appearing in sales-stimulating packages of crystal-clear see-through Campco Acetate. A special non-blushing formulation in the material enables it to maintain clarity during forming—prevents clouding and discoloration. Campco Acetate protects products, too. In addition to increased sales, manufacturers report fewer rejects due to shipping and handling damage. Campco Acetate is easy to form, unusually low in cost.

Packages by Plastofilm Inc., Wheaton, Ill.

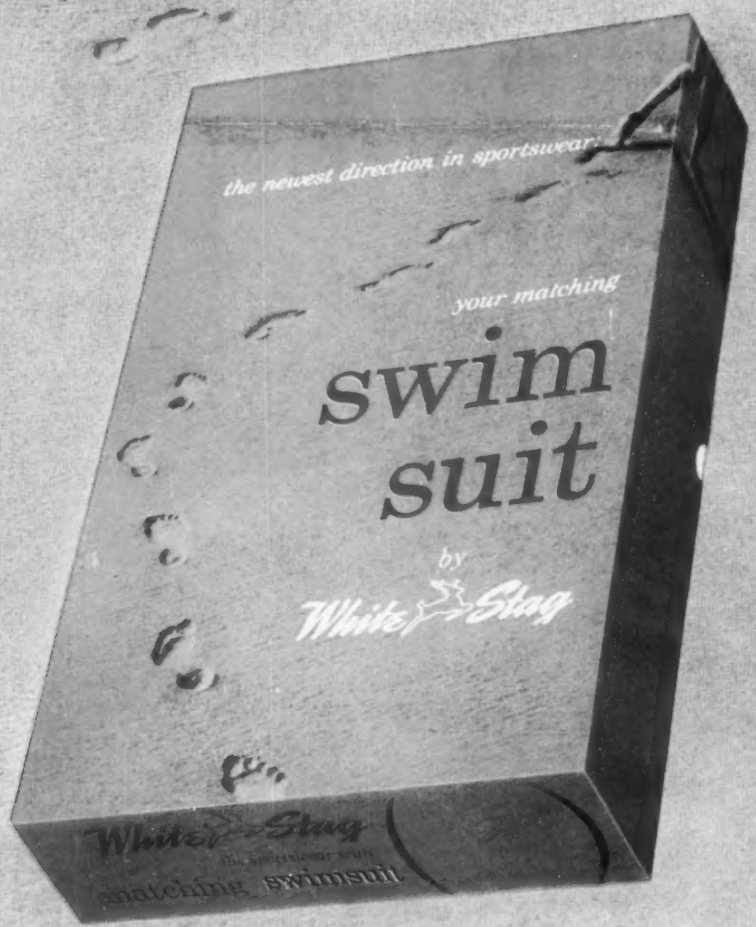
Received Your Campco Personal File? This data-packed reference file on thermo-plastic sheet and film is yours on request—just send name and address on Company letterhead to Campco, 2708 Normandy Avenue, Chicago 35, Illinois.
CAMPCO Sheet and Film, **a Division of Chicago Molded Products Corp.**

persuasive packaging

leaves impressive sales tracks!

Diamond Gardner Persuasive Packaging, like this attractive White Stag package, serves as an extension of your advertising—an effective point-of-sale display, merchandising your product on the spot where your customer actually makes his decision. Protects your product, too. Simply stated . . . it *sells*!

We like getting our "feet wet" in packaging problems. May we help you? Call or write for samples.



Persuasive Packaging

DIAMOND GARDNER CORPORATION

THE GARDNER DIVISION · MIDDLETOWN, OHIO

Plants in MIDDLETOWN and LOCKLAND, OHIO;
GARDNER-BROOKS, Inc., SPRINGFIELD, MASS.

diamond gardner

DRY CARTONS · CARRIERS · BOXBOARD
PARAFFIN CARTONS · RETAIL CARTONS

. . . the way my sales jumped and profits exploded when I went to Fairlon* polyethylene film packaging. It brings customers face-to-face with my products. Irresistible! And trouble-free machinability, too, because Fairlon* is the only polyethylene stamped *researched by Chippewa.* That means it's the finest available, made to rigid specifications on specially developed equipment to assure unmatched clarity, strength, and protection for your products. And the way it takes printing. Tremendous! If you're not in competition with me, switch to Fairlon* polyethylene film for perfect packaging.

There is a Chippewa product for every packaging need.
For technical assistance or specifications on Fairlon Sheeting and Tubing, contact:*

CHIPPEWA PLASTICS CO.

Division of Rexall Drug and Chemical Company
Chippewa Falls, Wisconsin

The mark of leadership

*Trademark Reg.

Q: And what else do you associate with STAN-PAK ?

Importantly...

. . . the way my sales jumped and profits exploded when I went to Fairlon* polyethylene film packaging. It brings customers face-to-face with my products. Irresistible! And trouble-free machinability, too, because Fairlon* is the only polyethylene stamped *researched by Chippewa.* That means it's the finest available, made to rigid specifications on specially developed equipment to assure unmatched clarity, strength, and protection for your products. And the way it takes printing. Tremendous! If you're not in competition with me, switch to Fairlon* polyethylene film for perfect packaging.

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Division of Rexall Drug and Chemical Company
Chippewa Falls, Wisconsin

**Trademark Reg.*

The mark of leadership

Q: And what else

Importantly...

FOIL and FOIL PACKAGING

STAN-PAK™ offers you single-source convenience. Film, foil, paper and board. Laminations. Sheet and roll stock. Bags, pouches, boxes, sleeves. Labels. Lining materials. Inner and outer wraps. Vacuum and controlled atmosphere packaging. Special purpose containers. Nineteen mills and manufacturing plants. Sales offices throughout the United States.

. . . the way my sales jumped and profits exploded when I went to Fairlon* polyethylene film packaging. It brings customers face-to-face with my products. Irresistible! And trouble-free machinability, too, because Fairlon* is the only polyethylene stamped *researched by Chippewa.* That means it's the finest available, made to rigid specifications on specially developed equipment to assure unmatched clarity, strength, and protection for your products. And the way it takes printing. Tremendous! If you're not in competition with me, switch to Fairlon* polyethylene film for perfect packaging.

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The mark of leadership

*Trademark Reg.

Q: And what else

Importantly...

FOIL and FOIL PACKAGING

One of the many areas in which STAN-PAK can help you get packaging mileage. Now one of the country's largest integrated packaging manufacturers, Standard Packaging offers you a comprehensive service, national in scope. Capacity . . . both manufacturing and creative. Representatives who know their business . . . and regard it as a privilege to study yours. STAN-PAK: a good company to know, and depend upon.

STAN-PAK

STANDARD PACKAGING Corporation
America's fastest growing packaging source
Executive offices:
200 East 42nd Street,
New York 17, N. Y.

Subsidiaries:

Fonda Container Co., Inc.
St. Albans, Vt.

Standard Cap & Seal (Canada) Ltd.
Burlington, Ontario, Canada

Divisions:

Allegheny Label Division
Cheswick, Pa.

Bradley-Gilbert Folding Box Division
Louisville, Ky.

Chemical Fine Paper and Board Division
Holyoke, Mass.

Closure Division
Chicago, Ill.

Eastern Fine Paper and Pulp Division
Bangor, Me.

Flexible Packaging Division
Clifton, N. J.

Fuller Label & Box Division
Pittsburgh, Pa.

Gebhart Folding Box Division
Dayton, Ohio

General Felt Products Division
Brooklyn, N. Y.

Johnston Foil Division
St. Louis, Mo.

Missisquoi Division
Shelden Springs, Vt.

Modern Packages Division
Los Angeles, Calif.

National Metallizing Division
Trenton, N. J.

Royal Lace Paper Division
Brooklyn, N. Y.

A package so useful it can make the sale

...THE PLUS CONTAINER! All of a sudden, dinner's ready and not a pot or a pan or a serving dish has been used. Housewives like this plus in a package; repeat on brands that offer such convenience. Yet, wooing today's capricious shopper is only part of the Plus Container's job. Because it's foil, it has features you'll like, too. Extra protection and strength to preserve freshness, flavor and color. Space preference in stores because it's easy to handle, case-pack and stack. As the world's largest manufacturer of aluminum foil containers, we know how to create a "useful" package for you. Tell us what you need. Let us show you what we can do.

The Plus Container

EKCO-ALCOA CONTAINERS INC.

WHEELING, ILLINOIS · WHITTIER, CALIFORNIA · LONG ISLAND CITY, NEW YORK

Background for Packaging

Notes, quotes and comments. An editorial feature

If nothing else came out of last year's recession, it "opened up a flood of new industry, business and advertising-agency enthusiasm for more basic study in how to market the volume of goods being turned out by an ever-bigger, increasingly efficient national production machine," says *Thomas B. Adams*, president, Campbell-Ewald. More marketing planning, says Mr. Adams, is now being aimed at showing that economic sags are caused not by too much production, but by lack of marketing capacity for creating consumer wants.

Three Washington developments of high interest to packagers: (1) The Food & Drug Administration will research the possible presence of carcinogens in container waxes if Congress approves an added $2,000,000 for F&DA, already appropriated by the House; (2) F&DA is asking Congress for a color-additives bill which, if passed, will be administered, the agency says, in the same spirit that it is applying to the new Food Additives Amendment (see p. 92), and (3) F&DA, in cooperation with the Federal Civil Defense Administration, has issued two reports on the effect of radioactive fall-out on containers and packaging materials, as well as on farm products and processed foods (materials vary in their retention of fall-out, it was found).

Food packagers see a movement of food lines into discount houses, drug chains, department and variety stores as a kind of compensation for the business that these outlets have lost to non-food departments in food stores. The non-food stores see cut-price food lines as new bait for customers. In some cases, says *Food Topics*, the non-food-store's food operations are becoming established full-line enterprises; in others, they are on a modest level; in still others, just experimental. At any rate, it's a trend packagers should watch.

Thought for packagers: "Today convenience is the success factor of just about every type of product and service that is showing steady growth. Serving today's consumer acceptably has become a highly creative art, with convenience a super-additive that can be tailored into products all along the road to market, from the farms, fields, forests and mines where raw materials are produced, through the whole complex of activities involved in marketing—*Charles G. Mortimer*, president, General Foods Corp.

Rack jobbers face a test in plans by some big food chains to find out whether direct buying and store servicing of non-food departments may be more profitable than rack-jobber buying and servicing. *Safeway*, for example, will conduct such a test in its 37-unit San Diego division and other chains will observe it closely. Any extension of direct buying by Safeway would swing others into same practice. One of the problems stores would face is that of proper packaging for non-foods, since this question has been left strictly to rack jobbers.

No more space at the Packaging Machinery Show. The two floors of the New York Coliseum which were reserved for the show in November have been completely sold out, according to *Albert R. Stevens*, chairman of the show committee of the Packaging Machinery Mfrs. Institute, and there is no prospect of obtaining additional area. More than 30 prospective exhibitors have been unable to obtain space. The New York space totals 65,000 sq. ft., as against the previous 50,000 [*Continued on page 40*]


Beech-Nut
BEECHIES
SPEARMINT
CANDY COATED GUM
Brighter packs for Beechies....
Beech-Nut
BEECHIES
PEPSIN
CANDY COATED GUM
Beech-Nut
CHLOROPHYLL GUM
FOR THE BREATH
15¢
Beech-Nut
BEECHIES
PEPPERMINT FLAVOR
CANDY COATED GUM
Beech-Nut
BEECHIES
FRUIT GUM
WITH LUSCIOUS ARTIFICIAL FLAVOR

BRITE-PAK ENAMEL COAT

Long a leader in progressive packaging, the makers of Beech-Nut Beechies merit their compliments on the sparkling appearance of the new Beechies box, *upgraded* with Brite-Pak Enamel Coat.

Brite-Pak bleached board is clean white on both sides and all the way through. It looks so much *more sanitary* than old-fashioned containers with their drab gray interiors next to the product.

This clean whiteness invites consumption . . . and *repeat sales!* Also, Enamel Coat's gleaming surface is perfect for full color process printing. It will picture your product brilliantly.

And Brite-Pak is *economical.* It can upgrade your packaging and still reduce costs. If you use folding boxes, see how Brite-Pak Enamel Coat bleached board can help *your* profits.

Just write or call Bleached Board Division,
West Virginia Pulp and Paper Company,
230 Park Avenue, New York 17, N.Y.

West Virginia Pulp and Paper

in Atlantic City. Space in future years is unlikely to go beyond this, as it is PMMI policy to keep the machinery show relatively small, specialized and flexible as to location.

New consumers are being born this year at the record rate of nearly 340,000 a month and each newborn baby will consume in its first year of life: 675 jars or cans of baby food; 337 cans of evaporated milk, 22 lbs. of sugar or syrup; 30 cans of juice, 20 doz. oranges, 10 boxes of zweibach, 15 lbs. of potatoes, 10 doz. eggs, 4 lbs. of bacon and six boxes of cereal. Thanks to *Food Merchandising* for this surprising revelation of the infant as a consumer of packaged goods.

Background for Packaging

Coffee cream in Tetra Paks, already introduced in Toronto restaurants, is about to make its debut in supermarkets there. The single-portion (⅝ oz.) containers will be packaged 10 or 12 to a polyethylene bag and reportedly will keep for a month under refrigeration as long as the individual units remain unopened. Filled containers are coming off the packager's line at 6,000 per hour per machine.

Plastics molders concerned about the future of their industry find two principal dangers in any continuing trend toward captive operations. For the entire plastics business, they see in poor-quality containers a black eye for the sounder products of professional molders. And for packagers, they see legal difficulties if purchased machines infringe the patent rights of other established equipment manufacturers.

[*Continued from page 37*]

Trademarks that sell in every language through the use of fewer words and more symbolic pictures are essential as international trade increases, says a vice president of *Jim Nash Associates, Inc.* "Individualistic designs that can easily be recognized throughout the world and protected merchandising-wise, in any country will be aids toward solving marketing and communications problems in the import-export situation," in the opinion of *Gerald Frisch.*

Variety stores thrive on new policy of broader lines of merchandise pre-priced and pre-packaged to sell in self service (see "What's Happening to the 5 & 10?" MODERN PACKAGING, June, 1959, p. 91). With 1,352 stores added by chains last year (new total: 23,675), sales rose to almost $4 billion, up 3% over 1957. Note that almost everything sold in variety stores is packaged.

Never underestimate the impulsiveness of a woman. Research by *R. E. Van Rosen Corp.* indicates that 65% of women shoppers in a supermarket do not get beyond one word in identifying a package on display. Of 320 women shoppers, 191 stated that one outstanding word was all they spotted when making a purchase; 16 said they recognized the package they wanted by the over-all image without reading anything. Slightly more than half the women said that impulse purchases were made when the product was visible or pictured in full color. One out of three attributed impulse buying to recognition of a product which she had previously seen in print advertisements or on television.

Regional differences in the acceptance of packaging must be considered by management in its selling program, the *A. C. Nielsen Co.* warns, particularly as the country's total population grows and such areas as the Pacific Coast grow much faster than others. Important here, for instance, is the fact that while the Pacific and West Central states show heaviest acceptance of large-size packages in drugs and foods, metropolitan Chicago shows a higher rate of sales increase for these sizes. At the other end of the scale, the Southeast, New England and metropolitan New York are the least receptive to large sizes.

BBD PRODUCTS

FLEXOGRAPHIC INK *SELECTOR* CHART

	Cellophane: Plain	Cellophane: Moistureproof	Cellophane: Saran- and Polymer-coated	Cellophane: Polyethylene (treated)	Aluminum foil	Paper & Board	Glassine	Pliofilm	Saran	Vinyl	Polystyrene	Acetate	"Mylar" & other Polyester films
ACETOPAKE												●	
EXCELLOPAKE 400 X-TRA	●	●		●	●	●	●						
FLEXOKRAFT						●	●						
FOILBRITE					●								
SPEED-E-BRITE	●	●	●	●	●	●	●		●*		●*	●*	●
THERMOFAST		●											
TRANSLUSTRO						●	●						

DOUBLE DUTY INKS for FLEXOGRAPHIC or GRAVURE PRINTING

HYDROTONE						●							
MUL-T-BRITE	●	●	●	●	●	●	●						●
PLIOPAKE								●	●	●	●		
SAFE-T-BRITE	●		●	●	●	●	●						●
VELVATEX						●	●						

**Depending on end-use*

BBD flexographic inks are developed and tested in modern research laboratories to assure you of superior, trouble-free performance in your plant. Years of field experience with BBD flexographic inks have proved their superiority on standard flexible packaging materials . . . or on custom applications. Why not get acquainted with BBD's line of modern flexographic inks . . . and the down-to-earth service that goes with them. You'll appreciate both.

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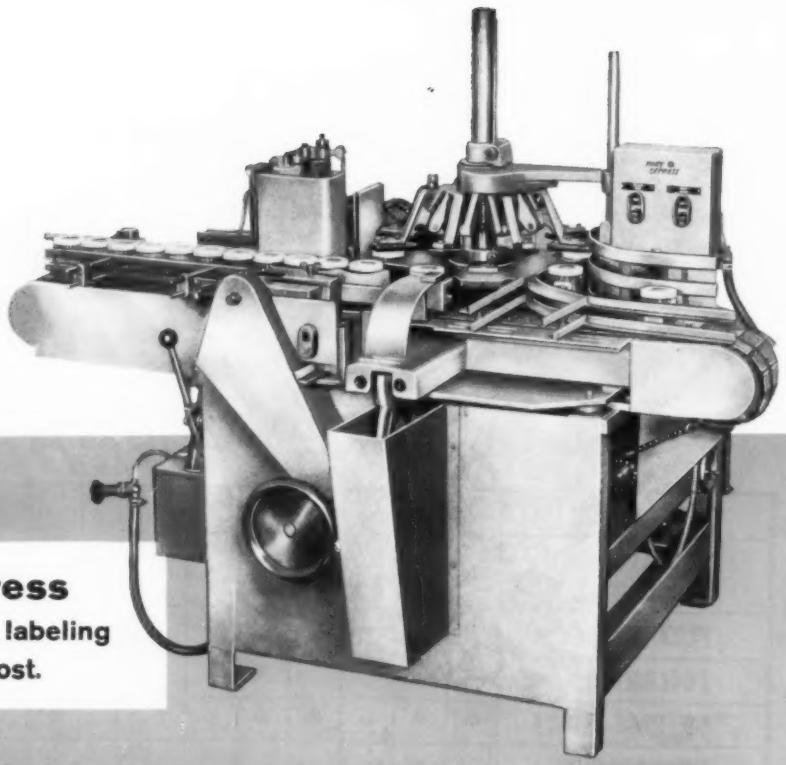


Pony Express
delivers precision labeling at low unit cost.

Fully automatic SUCTION labeler handles any shape label and container

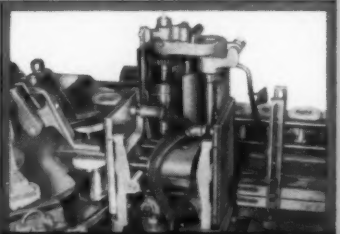
Your first and immediate saving with the Pony Express is that you eliminate the operator. Compared with semi-automatic labeling, you increase production as much as 50 per cent and *at one and the same time* you both reduce cost and improve package appearance.

The exclusive suction-principle operation of the Pony Express removes labels from hopper without assistance from the glue. Glue is used only for adhering labels to containers. Label registration is accurate to within 1/64" regardless of container's shape.

The Pony Express has a micro-controlled glue system that coats each label with a fine, even film of adhesive. This over-all gluing means containers are labeled with edges down tight. Glue seepage, loose-corners, hand retouching are eliminated entirely.

The Pony Express can be used for short runs as well as for volume production. Change-over from one job to the next takes only 25 minutes for both label and container. On large runs, the non-stop label loading feature permits longer, uninterrupted production.

Prices start at less than $6000. Write for new bulletin.



Suction Guarantees Perfect Label Placement. Label is controlled by the positive holding force of suction until the moment it is adhered to the container. It cannot shift in transit. Perfect registration is absolutely automatic

60 per minute labeling of unique shape

Even though the Helene Curtis Empress Cold Wave bottle has an unusual diamond shape, the Pony Express precisely positions the label on two surfaces at 60 per min.

MAKERS OF THE PONY LABELRITE — NEW JERSEY MACHINE CORP

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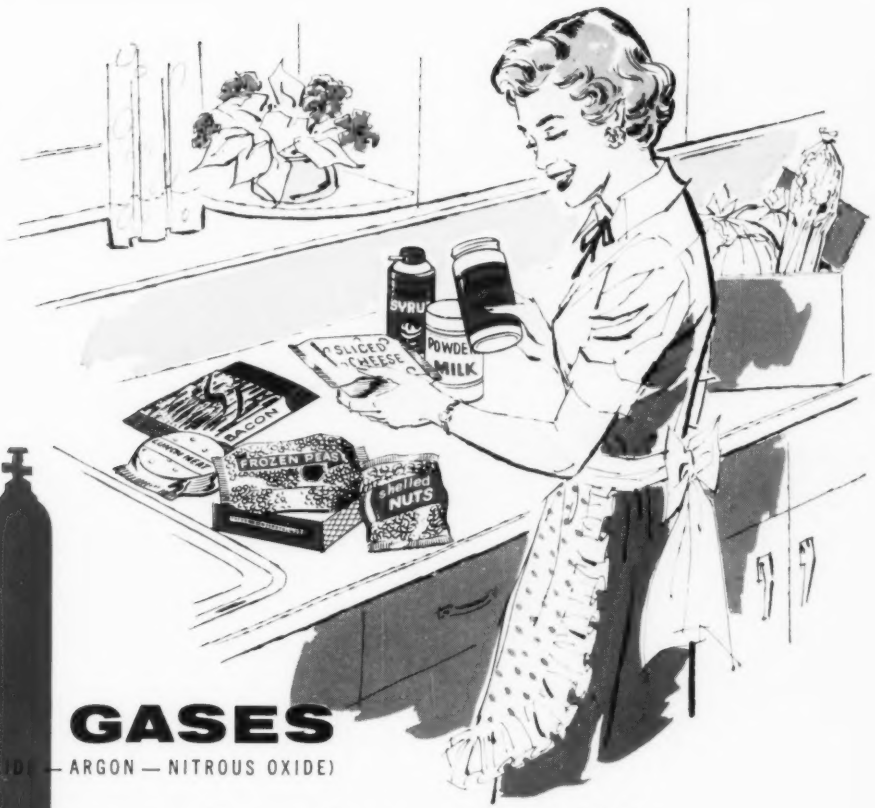

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(NITROGEN — CARBON DIOXIDE — ARGON — NITROUS OXIDE)

keep foods tasty - lengthen shelf life

If your food product is frozen or fresh, dried or powdered, it will taste better, look better, last longer and *sell easier* if it is packed with an Airco inert gas.

Products such as sliced cheese, luncheon meats, nuts, instant potatoes, soup mixes, powdered milk, fresh or frozen fruits and vegetables, packed in flexible film, benefit greatly if they are "blanketed" with an inert gas or mixtures of such gases.

Vacuum and inert gas blanketing prevents oxidative discoloration and quality loss — preserves inherent good flavor and color — and most important, lengthens product shelf life. In new flexible-packed frozen foods, Airco gases help prevent deterioration and costly "freezer burn."

And for products packaged under pressure, Airco propellants provide the proper push at lowest cost.

See an Airco technical representative soon for the gas best suited for your use. As a start, why not send for the free informative brochures listed in the coupon below — they're yours for the asking, without obligation.

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Company.....

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City.....Zone.....State.....

Equipment & Materials

A MODERN PACKAGING editorial feature

Coated polyethylene tube for toothpaste

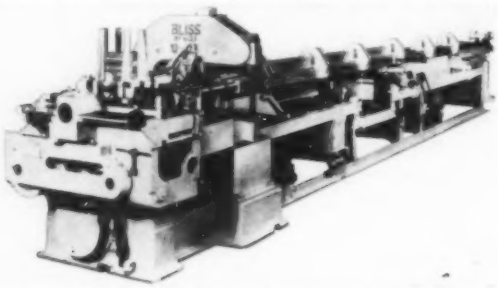
American Can's Bradley-Sun Div. reports the development of a new coating that will permit the packaging of toothpaste (and other items heretofore not packageable in plastic) in polyethylene squeeze tubes. Although no data are available on the nature of the coating, the supplier reports that all its ingredients have previously been approved by the Food and Drug Administration. Applied to the plastic tube's inner walls, the coating is claimed to form an effective barrier to permeation by odor, flavor, solvents, oxygen, oil and grease, as well as to protect polyethylene from attack by formulations which otherwise would cause it to swell or degrade. The new coated tube is produced by an extrusion-injection molding method. It can be fabricated in a number of combinations of diameter and length, using either clear or pigmented polyethylene. Label decoration is applied by offset printing. *Bradley-Sun Div., American Can Co., Hillside, N.J.*

Fiberglas protective packaging

A lightweight Fiberglas protective-packaging material which is designed to protect a variety of products from damage and rapid temperature change in transit has been put on the market by Owens-Corning Fiberglas. Among the reported characteristics of the material are: high compression resistance, damping and thermal efficiency, extreme resilience, non-corrosiveness, resistance to fungus or rot, and fire retardance. It is claimed to retain these properties in a temperature range of minus 120 deg. F. to 375 deg. F. *Owens-Corning Fiberglas Corp., Toledo 1.*

One machine makes many can sizes

Designed particularly for packagers who wish to make their own line of cans is Bliss Co.'s Model 603 Universal bodymaker. The unit, says the supplier, will produce a range of can sizes that would require several sizes of standard



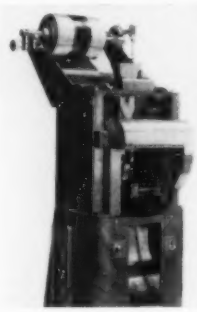
bodymakers to produce. It manufactures cans up to 6 7/16 in. in diameter and up to 7 13/16 in. in height. It is of open-arch construction, for easy accessibility to forming parts. A single, centrally located crankshaft is reported to insure precise synchronization of all motions as well as extreme accuracy in high-speed operation. Body feed is of the conventional bottom-feeding type. *E. W. Bliss Co., Container Div., Canton, O.*

Machine makes side-weld film bags

A new machine for making side-weld polyethylene bags is being offered by Conapac. Called Weldmaster, it makes bags ranging in width from 3 in. to 34 in., and in length from 3 in. to 40 in. Production rates are 30 to 100 bags per minute (double when tubular film is used), according to the supplier. Cited features of the unit include: ease of change-over to different bag size; simple, heavy construction; low maintenance cost; easy access to all parts; simple installation, and built-in safety controls. *Conapac Corp., 120 E. 13 St., New York 3.*

Rotary-action bag former, filler, sealer

A new vertical machine for forming, filling and sealing pillow bags or pouches—the Compak Series J—is being offered by Hayssen. The supplier says that its new machine will provide high-speed automatic packaging at a fraction of the cost of comparable equipment. Principal economies are reported to stem from the use of rotary (with dwell time and pressure) rather than reciprocal action. Simplified design cuts maintenance costs, says the company, and allows quick and easy changing of bag size. The machine accommodates any heat-sealable suppported material in web form and will make a four-side seal as well as pillows and pouches. Speed ranges up to 150 bags per minute, depending on bag size and product. Bag sizes range from 1 in. by 2½ in. to 8 in. by any desired length. Filling equipment consisting of scale, volumetric measuring, auger and liquid pump feeds is available. *Hayssen Mfg. Co., Sheboygan, Wis.*



Hot-melt-glue applicator

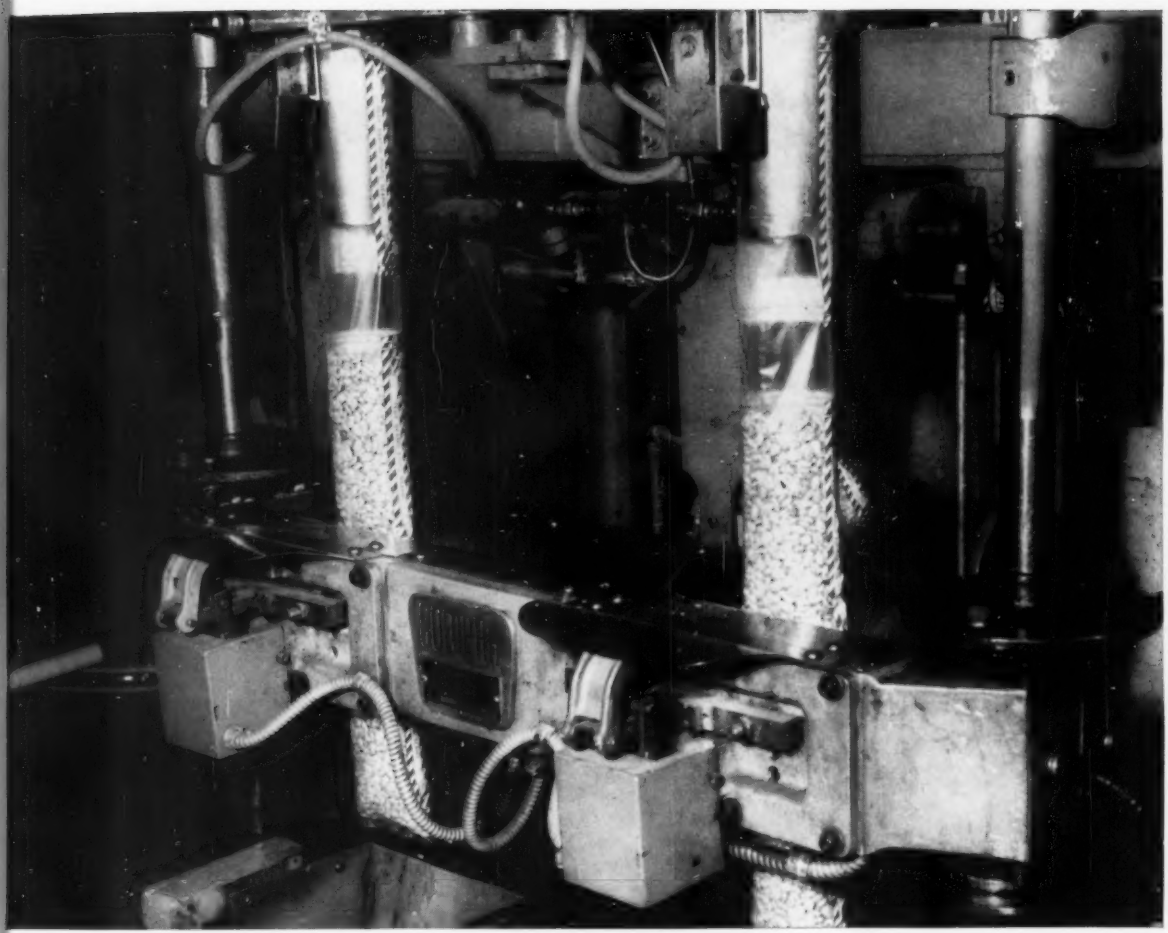
Operating speeds up to 1,000 ft. per minute are possible on straight-line gluing machines with its new applicator for cord-like Thermogrip adhesives, says United Shoe Machinery. The transfer-wheel applicator, Model AW, reportedly can apply a ¼-in. band of hot-melt adhesive to cartons 10 in. long at speeds up to 25,000 cartons per hour. According to the supplier, the new unit makes possible high-speed gluing of plain kraft box boards and coated materials with foil, polyethylene and waxed board. The device can be incorporated into conventional carton-making machinery or into original equipment. *United Shoe Machinery Corp., 140 Federal St., Boston 7.*

Tube winder with integral cut-off

An automatic spiral-tube winding machine with a hydraulically operated integral cut-off is available from Dietz Machine Works. Designed to wind and cut roll cores, can bodies and protective sleeves in a single operation, the Model ATM winder is said to produce tubes up to 20 ft. long at speeds up to 120 fpm. For most purposes, finished tubes can be produced on the machine, eliminating the need for recutting, according to the supplier. *Dietz Machine Works, 126 W. Fontaine St., Philadelphia 22.*

Long-drive carton-blank delivery

General Corrugated Machinery's new Long-Drive Counter-Stacker Delivery machine has been designed for applications where board or boxes have to travel some distance to clear the machine. The machine's bundle-pusher attachment is chain driven, with standing arms which go down around the sprocket near the delivery end of the machine, where a higher-speed belt takes away the squared bundle of box blanks. Also new from the supplier is an attachment for its taping machines that automatically applies a tear



Those who know their beans Automatically package in ViSQUEEN film

TRADE MARK

"We proved VISQUEEN film is best for automatic packaging machines here at the Peak Bean Corporation. VISQUEEN film gives us greater stiffness . . . more body than we find in any other film.

"We get other advantages with VISQUEEN film. Less down-time—by far. Higher speeds. Uniform feeding through the machines. Film is delivered uniformly wound. It all adds up to greater economy when we package dried beans for grocery distribution.

"We find VISQUEEN film's greater uniformity of thickness results in greater film strength, too. No thin, weak spots. We get better machine performance—and better product handling and shipping because of this extra strength, too.

"In the store, VISQUEEN film's superior clarity and printability helps move more product. We give a lot of credit to Trans-Pak of Miami for design and printing."

F. Regis Daily
President and General Manager
Peak Bean Corporation
Greely, Colorado

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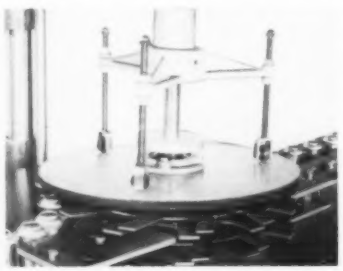
tape for opening cartons. The "Rip-Cord," as it is called, is automatically adhered along the centerline of gummed tape as the latter is applied to the manufacturer's joint. Regardless of tape length, a machine-cut starting tab is provided at each end of the tape. *General Corrugated Machinery Co., Palisades Park, N.J.*

Labeler for cylindrical containers

Intermittent labeling of cylindrical containers can be achieved with Labelette's new improved labeling machine. The unit accommodates containers ranging in capacity from 1½ oz. to 1 gal. Cited features of the new labeler are: a ductor roller that applies a thin, smooth coating of glue; stabilizing legs that tilt up onto rolling casters; hardened shaft inserts designed to prevent excessive wear; an open glue tank, and a patented glue-film lock. *Labelette Co., 2611 W. Leland Ave., Chicago 25.*

Aerosol-can code imprinter

An automatic packaging-line imprinting attachment designed specifically for coding the bottoms of aerosol cans is offered by Gottscho. The TB Aerosol Coder is reported to operate at speeds up to 300 cans per minute and to accommodate different-size cans without the use of change parts. Adjustments for speed and can size can be made in minutes, says the supplier. The unit is claimed to afford sharp, permanent imprint of one or more lines of copy, even on container bottom surfaces that are recessed as much as ⅝ in. *Adolph Gottscho, Inc., Hillside, N.J.*



Roll-to-roll rotogravure printing press

Mercury Engineering has introduced a roll-to-roll rotogravure printing press that reportedly is capable of sustained printing production on paper or paperboard at speeds up to 1,200 lineal ft. per minute. The supplier reports that the roll-to-roll design of its new Mercury J-4 is the result of increasing demand from carton makers for a type of carton production in which printing is separate from the die-cutting operation. On the new press, carton printing (up to eight colors) is done roll to roll, with preprinted rolls electronically registered in a reciprocating platen-type cutting press as a separate operation. According to the company, one of its printing presses supplies sufficient printed material to keep two to four reciprocating cutters operating at maximum speed. *Mercury Engineering Corp., 2100 N. Farwell Ave., Milwaukee 2.*

New 32-oz. plastic jar

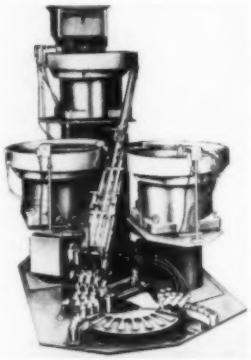
Celluplastic Corp. has added a 32-oz plastic jar to its line of stock vials and jars. The jar is available in either linear polyethylene or polystyrene. Each model takes a standard 120mm closure in black metal with pulp and vinyl liner. The lightweight jar offers savings in shipping costs and reduces breakage, the manufacturer reports. *Celluplastic Corp., 50 Ave. L, Newark 5.*

New price-marking unit

Cleveland Lathe & Machine has added a new unit to its Clamco line of price-marking devices. The supplier reports that its new entry, the Imperial, is available in five different models and band arrangements. *Cleveland Lathe & Machine Co., 5400 Brookpark Rd., Cleveland 29.*

Parts-orienting and placing unit

An automatic parts-orienting and placing machine, incorporating three standard vibrating parts feeders, is available from Syntron. The device orients, feeds and places such components as plastic bottles at a rated speed of 40 per minute. In operation, bottles are loaded in bulk into the supply hoppers. Actuated by bowl-level switches on the three parts feeders, a vibrator on the respective supply hopper is energized, metering bottles into the parts-feeder bowl until the quantity accumulated is sufficient to cause the bowl-level switch to shut off the vibrator. Then the parts feeders automatically orient and feed bottles through gravity-feed tracks to an indexing table. *Syntron Co., Homer City, Pa.*



Foil volume-feeding container

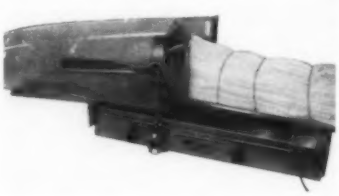
A new stock item from Ekco-Alcoa is a rigid aluminum-foil volume-feeding container for the packaging of frozen vegetables, entrees and specialty dishes. Cited advantages of the new container are: reduced product-handling time, since food need not be transferred from container to steam-table pan; reduced product waste; savings in labor (through elimination of pan washing), and consistent food quality. *Ekco-Alcoa Containers Inc., Wheeling, Ill.*

Constant-motion electronic checkweigher

Bartelt's new electronic checkweigher handles a variety of package sizes, shapes and weights, and is claimed to be accurate to within 1/64 oz. In operation, a polyester belt is driven at a constant speed over a weighing platform attached to an electronic weighing head. Photo-electric eyes control the sequence of the weighing operation, automatically adjusting to the output of the infeed conveyor. The weighing head transmits a signal that actuates a segregation gate, classifying packages by weight at reported speeds up to 200 per minute. Underweight packages are rejected from the conveyor; overweight packages are shifted aside; those within the acceptance range pass through. *Bartelt Engineering Co., Rockford, Ill.*

Bagging large cloth bolts

A machine that is claimed to be the first to be able to bag full-length, 50-lb. double bolts of knitted goods in polyethylene is available from Tele-Sonic. The unit is now in use accommodating polyethylene bags measuring 19 in. wide by 42 in. long, with a 6½-in. side gusset. Bags are closed with a twist of paper-wrapped wire or string. The semi-automatic machine is reported to be capable of bagging 180 double cloth bolts per hour. In operation, the unit feeds bags upward automatically and a jet of air keeps the bags open. Stainless-steel carrier-delivery arms guide the bolt into the open bag. The arms then slide back to receive the next bolt. *Tele-Sonic Packaging Corp., 208 W. 27 St., New York 1.*

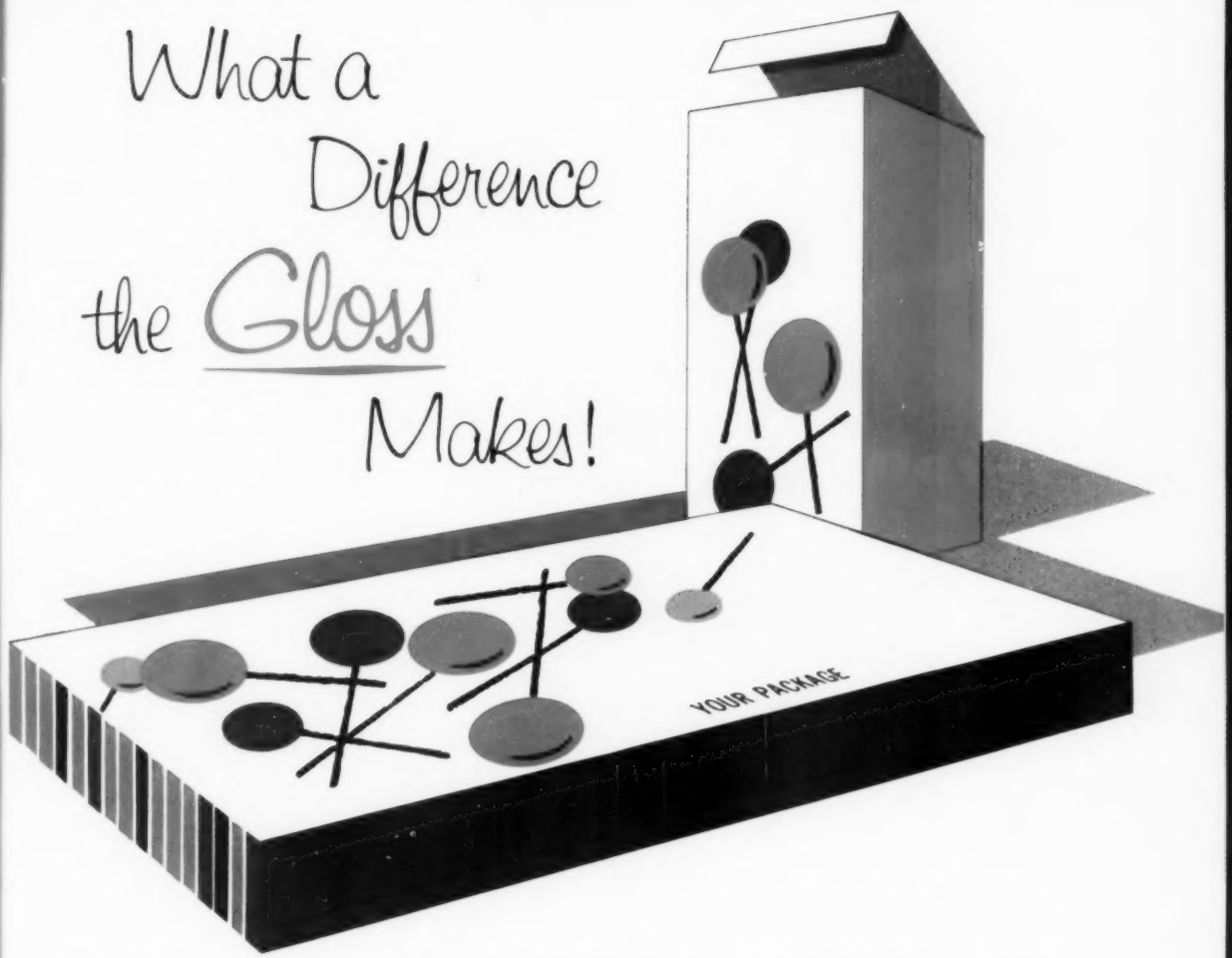


Metal-stayed packaging program

The organization of a complete metal-stayed packaging program is announced by Crowell Carton. The supplier reports

[*Continued on page 138*]

What a Difference the Gloss Makes!



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Highlight the colorful beauty of your package with high gloss

IC*-64 Polyester Coating

It imparts a glamorous gloss, brings out the sharp richness of the inks, and adds vivid "Buy-Appeal" to everything it coats . . . packages, folding boxes, labels, book jackets, displays, etc. IC-64 offers many special benefits:

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- May be used up to a week after addition of catalyst.
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Make your package VIVIDLY beautiful with IC-64 Polyester Coating. Write for further details today.

Put this page to your own brilliance test. Try to scuff or scratch it. Notice how it retains its gloss, to bring out the beauty of your product!

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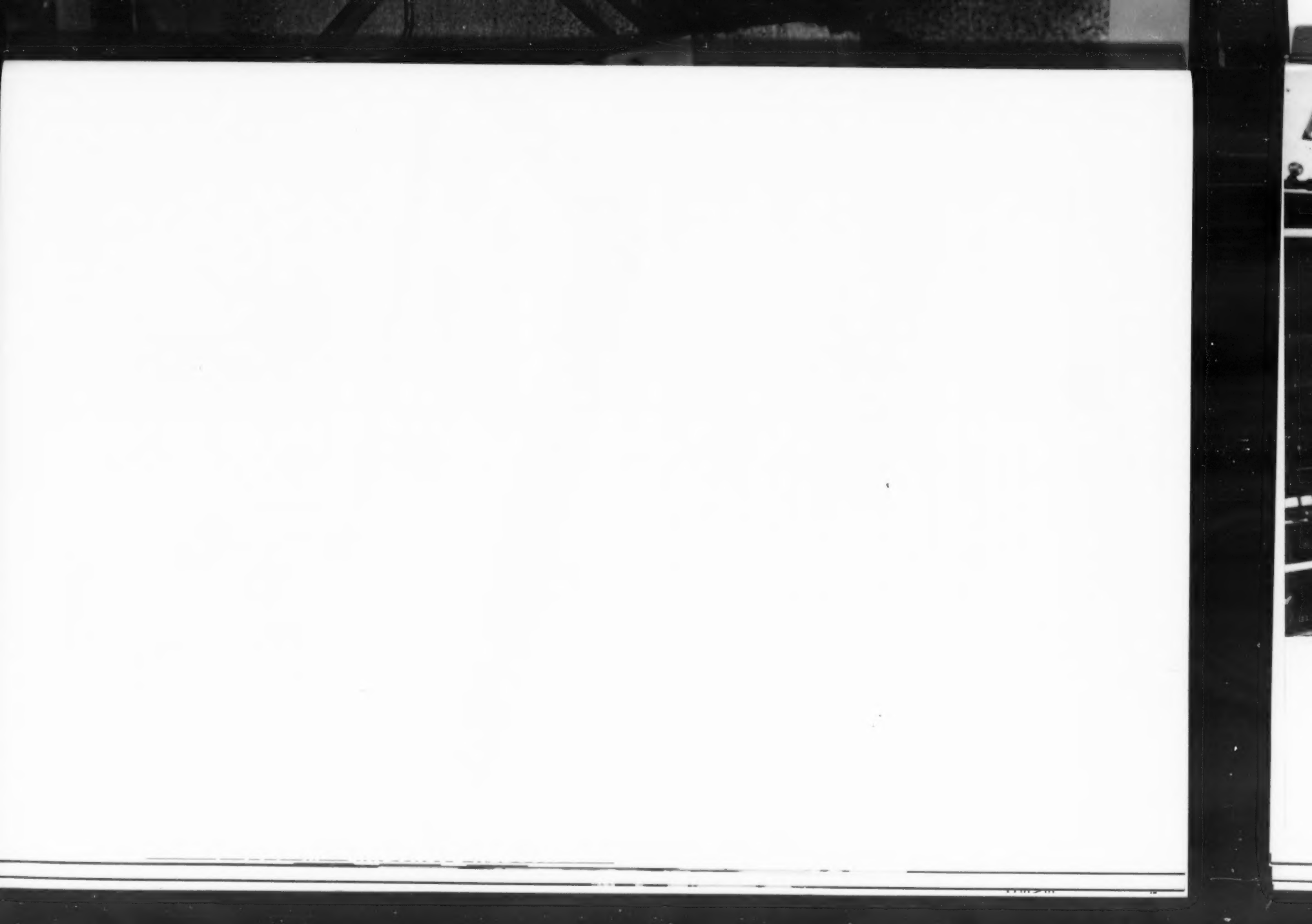

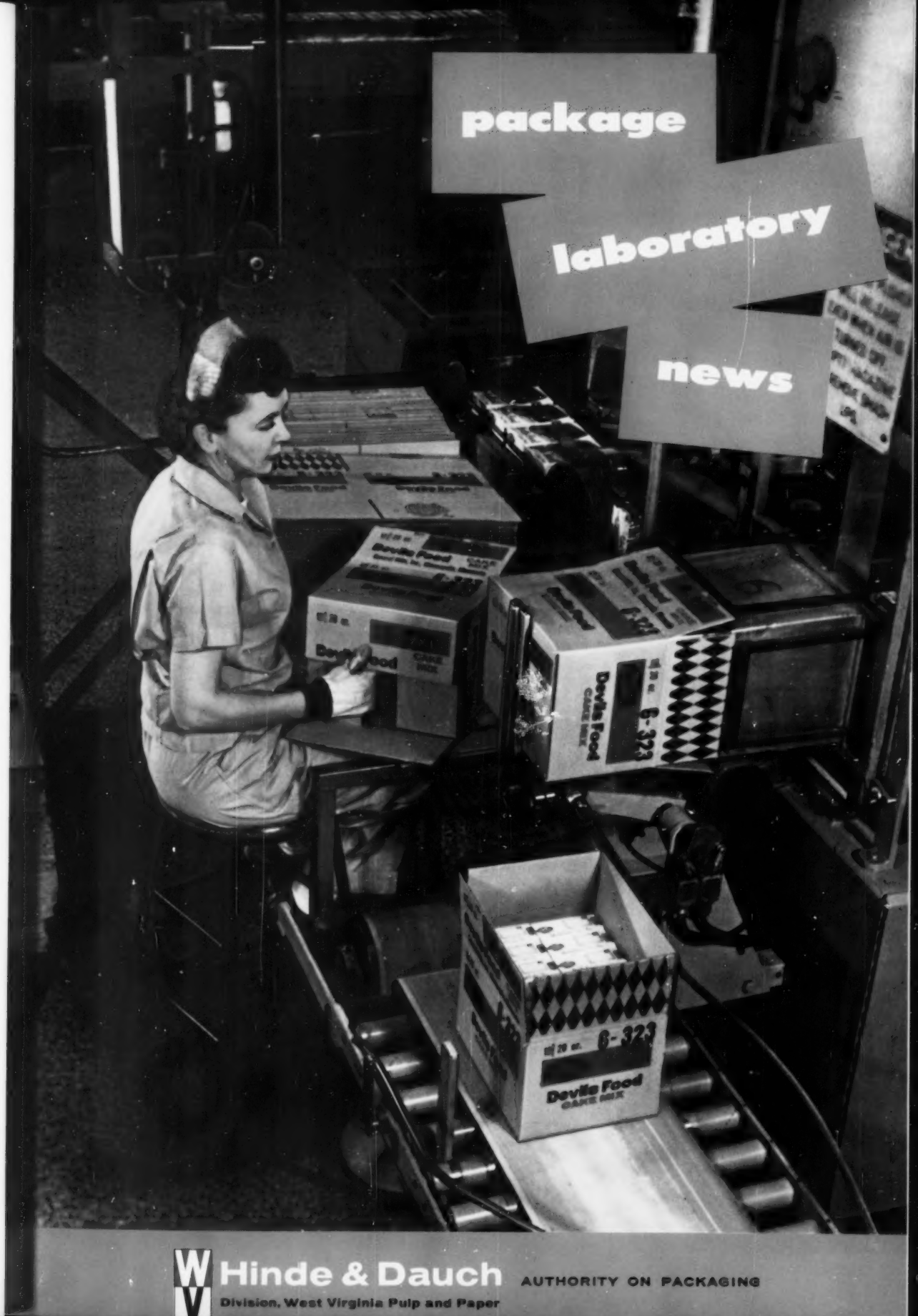

Package
Laboratory News

Published Quarterly by Hinde & Dauch Division, West Virginia Pulp and Paper Company, Sandusky, Ohio
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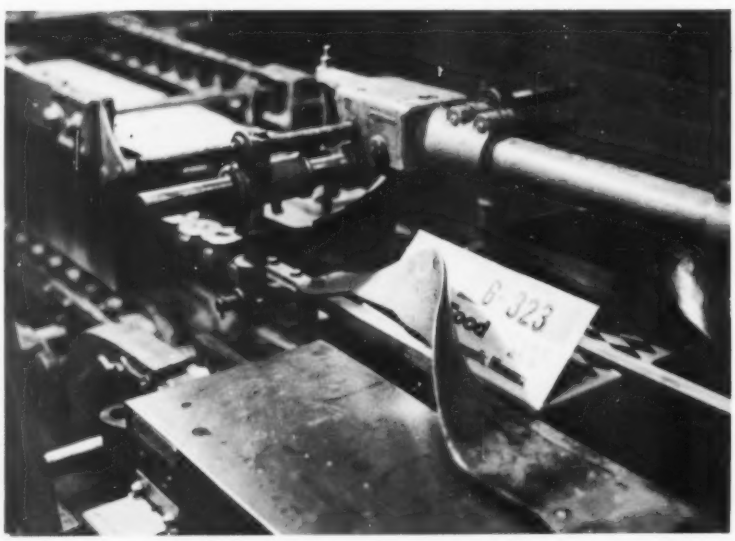
General Mills uses this caser to fill corrugated boxes with Devils Food Cake Mix. Each of the colorful H & D boxes holds twelve 20-ounce cartons. After this operation, boxes are conveyed to automatic sealing equipment.

Corrugated takes the cake

General Mills ships Devils Food Cake Mix in precision-made H & D corrugated boxes



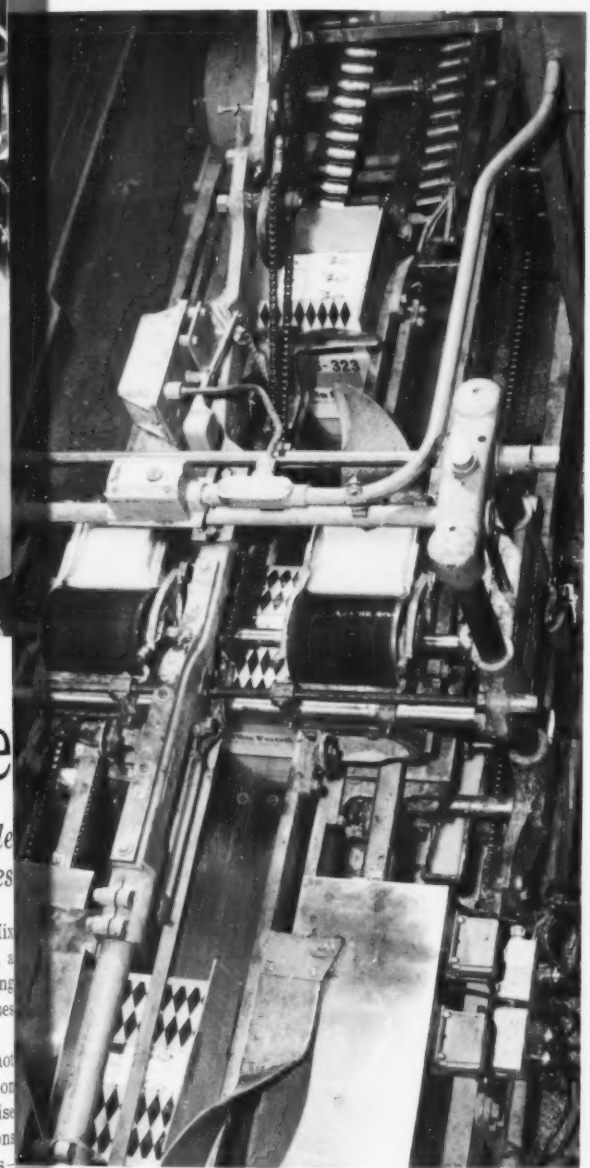
Betty Crocker Devils Food Cake Mix packages are packed—one dozen at a clip—into H & D's corrugated shipping boxes. Then an automatic sealer closes the flaps for safe shipment.

Ordinary corrugated boxes are not good enough for high speed production lines. General Mills specifies precise boxes with close-tolerance dimensions and perfect manufacturer's joints—boxes that move smoothly through automatic equipment without a hitch.

General Mills relies on H & D to provide precision-made corrugated boxes for fast-selling Devils Food Mix.

Close-up of General Mills' automatic sealing machine reveals the complexity of such equipment. Only corrugated boxes with precise dimensions will move through without tie ups

After automatic sealing, corrugated boxes are conveyed down to shipping floor and loaded onto a double-end pallet holder. Man at conveyor belt fills one side with boxes while lift truck driver unloads the filled pallet on the opposite side.



Overhead view of General Mills' equipment shows first of two steps in box closure: Inside top flaps are closed and glue applied. Next, outer flaps are shut and pressed firmly until sealed tight.

Lift truck driver removes filled pallet. Sturdy corrugated boxes stack evenly, are clearly printed to aid in warehousing. Printing also helps merchandise product at retail level.

Sounding Board

QUESTION OF THE MONTH:

In your operation, what has proved to be the best packaging-line layout and line shape—and why?

John C. Otto
Vice President-Production
Curtiss Candy Co.

A continuous packaging operation, with matched equipment capacity, has always proved the best for Curtiss. This type of operation results in minimum handling and also brings about the best cost attainment and final package appearance.

Our packaging-line operations are many and varied, but this example will answer the question:

The product, in this case, is "Miracle Aid," a dry-powder base for a soft drink.

Specially coated roll-stock paper is machine formed into pouches and then automatically filled with the "Miracle Aid" dry powder to a predetermined weight, sealed and cut into individual packages.

These packages are deposited on a moving conveyor belt in a continuous row, all facing the same direction. In the next stage of the operation, they are placed into compartmented boxes. A minimum amount of counting or checking is required. The filled boxes are closed, packaged into cartons and automatically conveyed through carton-sealing machines.

This procedure gives Curtiss the utmost in efficiency and the best in product appearance. Any discontinuous operation, we have found, requires costly double handling and, regardless of how much care is exercised, is not conducive to anything approaching the same high-quality packaging.

Ralph A. Quaglia
Director of Product Development
Joseph Dixon Crucible Co.

In our type of marketing, which takes in nine different types of distribution from industrial to consumer packaging for supermarket outlets, we must use all types of packages—films, folding cartons, set-up boxes and metal. Also, though many of our products are the same size and shape, they vary widely in color and type, which must be noted on each individual package.

Thus, we have found it impossible to use high-speed, straight-line production techniques and have found that the discontinuous type of production is more economical.

In our plant, each stage of production and packaging is departmentalized, thus necessitating accumulation areas. These separations are based on product quality and the type of packaging. We have also found it economical to tie packaging to each product department, rather than maintain just one central packaging department.

William Butscher
Packaging Superintendent
Avon Products, Inc.

Avon's Morton Grove laboratory was designed to use the straight packaging-line layout. In this modern, two-level operation, empty containers enter the packaging room from the container warehouse on the filling side of the lines, are combined with the bulk product fed by gravity from the second level and leave the packaging room as a finished package at the opposite side of the room—going straight on to storage in the finished-stock warehouse (see "An Acre of Efficiency," MODERN PACKAGING, Nov., 1957, p. 133). In our operation, this combination of warehousing and manufacturing facilities has made the straight-line layout very effective. Discontinuous line operation with accumulation stages are avoided wherever possible. That type of layout usually requires additional labor, increases packaging costs and decreases efficiency of operation.

The straight line has several distinct advantages over the U-shaped or switch-back type of line: (1) delivery of containers to their stations on the lines is quickly accomplished, as all sides of the line are readily accessible and no unnecessary lifting of packers over the lines is required; (2) housecleaning is easier to maintain and the general appearance of the lines is neat and uncluttered; (3) dead plates and transfer stations, often irksome, can be eliminated, thus decreasing labor costs and eliminating the need for auxiliary power units.

Space permitting, straight-line packaging combined with adjacent container and finished-stock warehousing

is the most practical type of set-up for any plant. This is especially true if your operation is faced with the problem of multiple containers, short runs and frequent line change-overs.

L. Stanley Regis, Jr.
Materials Handling &
Packaging Engineer
American Optical Co.

Our company manufactures over 200 classes of products, some of which have as many as 13,000 separate items, as in the case of lenses. Due to the wide diversity of our products, no hard and fast answer can be given as to what method of packaging is the most efficient and practical. In a number of instances, straight-line packaging is far more feasible than any integrated method.

We have found that wherever it is possible to install a straight-line packaging operation, there has been increased efficiency, with a resultant downward reflection in our unit packaging costs.

Charles J. Saturnia, *Assistant to the Vice President-Operations, The Celotex Corp.:* Straight-line, fully automatic assembly packaging results in: (1) a tighter package, reducing damage hazards in transit, (2) more efficient use of personnel and (3) mass production for faster movement of product from machine to customer, relieving inventory staging-area problems.

We have found it best to package on a continuous straight-through line. Our type of products—building materials—are adaptable to package standardization, which is absolutely necessary to continuous straight-through line packaging. The continuous method has its drawbacks. For instance, if the packaging unit should break down, the entire production line is out of commission. On the other hand, accumulation of stock for package unit feeding requires space allocation as well as manual allocation and perhaps hand feeding to the packager. We value space highly and our particular experience indicates machine-paced operations to have considerable cost benefits compared with manually paced operations.

George R. Ryan
Director of Packaging
Abbott Laboratories

The complexities of pharmaceutical manufacture require our packaging line-ups to vary from one or two girls producing only 100 items per day to high-speed lines furnishing well over this quantity per minute.

Much of the production, however, is in between these extremes and is accomplished on straight-line conveyors with semi-automatic equipment. The straight line-ups allow a parallel flow of materials and simplified change-overs both for products and equipment.

Most of the high-speed lines are U-shaped or designed specifically to fit the needs of production or available space.

The batch-type production essential in this industry for the maintenance of strictest control—from raw materials to finished items—rules out a continuous straight-through line. Some items, such as ampoules, go through several distinct steps. The solution is prepared, then sent to the Control Laboratory for analysis. After approval, the ampoules are washed, dried, filled, sealed and sterilized. Inspection usually takes place the following day and samples are again sent to Control for sterility, pyrogen and chemical testing. The ampoules are held in bulk storage for approximately two weeks awaiting test results. Upon release they are labeled, cartoned and packaged in shipping containers for stock. Even items not subject to the rigid control of injectables, such as tablets, liquids and ointments, require interruption between manufacture and packaging for analysis and testing.

After release of the manufactured items, the finishing process—which includes bottling, capping, labeling, cartoning and insertion in the shipping container—is carried through without interruption or accumulation.

Anthony Russomanno
Director of Purchasing
Marex Mfg. Co., Inc.

In our operation, the best packaging-line layout and line shape has been the U or the S shape. Our experience with this type of a layout has proved more economical and more efficient.

Only after a period of careful study did we find that this method of operation proved to be more compact and more diversified as to the flexibility of operators and the flow and storage of material.

With this type of a set-up you have adequate room for your components, sub-assemblies and any other pertinent materials required in your operation without cluttering up the aisles.

As for the visibility of the entire operation, the foreman or supervisor of the line has a clear view of the entire operation and is able to detect any flaws at any point of the packaging line with a minimum amount of supervision.

John E. Kitson, *Production Manager, Shulton, Inc.:* We have found that a straight-line layout is the best for our particular needs. There is usually additional equipment such as turntables, etc., used in an offset line that can create production problems and additional investment. A straight line leads to a neater appearance from a housekeeping standpoint because it dictates a straight-line storage, whereas the offset line is apt to create an irregular storage pattern of in-process materials. The irregularity of offset lines projected into a multi-line department is not usually pleasant to the eye because the irregularities vary with the type of equipment on a given line and [*Continued on page 168*]

Avoid waste of labels that become obsolete

Any change in product content, price or production date can turn expensive pre-printed labels into paper scrap... You can avoid waste by imprinting labels as you need them—with a Tickometer. And reduce label inventories and printing bills as well.

- The Tickometer can imprint specifications, weight, color, size, quantity, price or a code on labels, wrappers, light cartons, etc., on short notice, as you need them. In a few minutes all the packaging needed for the day's output can be imprinted.
- It handles most weights and finishes of paper and light card stocks, in sizes up to 15 by 15 inches. Gives exact register on an impression surface of 2-3/16 by 7/8 inches. Feeds and stacks automatically, is easy to use. Can be rented or bought. And Pitney-Bowes service is always available from 302 points.
- The Tickometer also counts—cards, checks, coupons, sales slips, orders, forms—eight times as fast as experienced manual workers. It's so accurate that banks even use it to count currency. Can be set for a predetermined count, or to register partial amounts or totals. With accessories, it will sign or endorse checks, do consecutive numbering.
- Call the nearest Pitney-Bowes office for a demonstration. Or send for free illustrated booklet and case studies.

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Made by the originator of the postage meter... offices in 121 cities in U.S. and Canada.

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Send Tickometer booklet and case studies.

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Are You Completing All These Jobs in One Operation?

Produced at Lowest Costs

You can complete in one operation any type of label, using any type of label stock including heat seal, pressure sensitive and other materials—with one New Era Press at speeds up to 7,500 impressions per hour. Finished product is delivered either cut off, rewound or folded.

Completed in Any Size

Why pass up or farm out short-run orders of 5,000 to 30,000 sets for any size snap-outs and continuous forms when one New Era Press does the jobs profitably with minimum changeover and downtime. There is no limit to size of forms as with a rotary press.

FROM PAPER ROLL TO COMPLETED PRODUCT IN ONE HIGH-SPEED OPERATION

That's the New Era Press! It prints any number of colors on one or both sides of the web at the same time, die-cuts any shape or size, slits, punches, perforates, numbers and delivers the finished job—either cut off, rewound or folded—at the end of one run by one pressman. The New Era Bulletin also shows how the New Era Press handles bag headers, tickets, specialties. Write on your company letterhead now for your free copy of the New Era Bulletin.

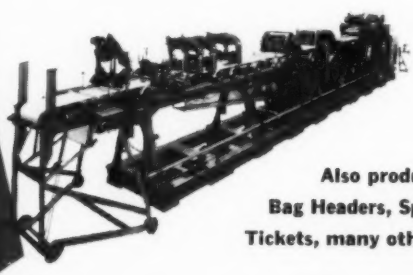
SEE GRAPHIC ARTS IN ACTION

7th EDUCATIONAL Graphic Arts 69 EXPOSITION

NEW YORK COLISEUM SEPT 6 12 1959

NEW ERA BOOTH NO. 147

NEW ERA



Also produces
Bag Headers, Specialties,
Tickets, many other products

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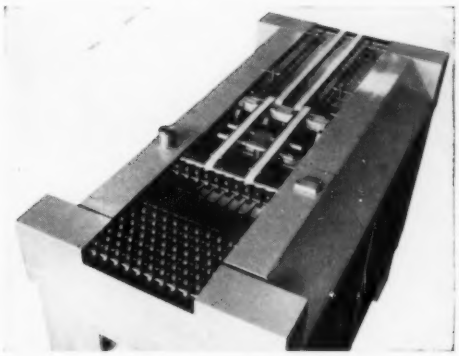
Manufacturer of the finest printing presses for more than 59 years

fmc sets the pace in high speed electronic check weighing



...400 packages per minute "on the fly"

At speeds never before possible, you can now check weigh all your production with unvarying accuracy. Depending on gross package weight, the new FMC Electronic Check Weigher senses variations of as little as plus or minus ½% at a rate of up to 400 packages per minute.

With a constant speed, no-stop motion, this new check weigher takes the production from one or more filling lines via high speed conveyor, weighs and segregates each package according to preset tolerances for over or under weight. Fully automatic, it operates without an attendant.

The new FMC Electronic Check Weigher handles round, conical, rectangular, oblong or irregular packages up to 10" wide by 10" long. Package weight ranges from 1 ounce to 1 pound or from 8 ounces to 3 pounds. Controls for setting weight tolerances are simple and readily accessible on a side panel. Recording instruments and numerical counters are supplied if required.

Extremely compact, the unit is only 48" long by 24" wide. The height is adjustable from 30" to 42" to fit into any existing production line.

For descriptive literature, write to...

Putting Ideas to Work

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FMC Packaging Machinery Division

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The Magic Touch of

EASY DOES IT...
EASY SELLS IT!...
with Aerosols

Aerosol Packaging

can give your products "feminine appeal"

If you have a woman's product, and want to gain entry to milady's chamber for it, consider the advantages of aerosol packaging. The convenience. The glamorous new container shapes, colors and textures. And the high state of development of the aerosol "art."

Aerosol packaging does seem to have a magic touch in helping to sell a woman's product. Hair sprays are still the largest selling single aerosol product group—115 million units in 1958*. Aerosol colognes and perfumes have proved phenomenal sellers—shooting up from 5.4 million units as recently as 1955 to 28 million units in 1958*. Aerosol hand lotions and creams are showing a similar increase, as are aerosol personal deodorants. If you have a product in any of these fields—or a related one—you should be considering aerosol packaging *right now!*

How General Chemical can help you

General Chemical manufactures the right propellant for every cosmetic aerosol need under its trade name "Genetron." These propellants can give your product exactly the right "push" your aerosol formulation requires.

As a leading supplier of aerosol propellants, we will be glad to help you get started in aerosols. We will supply you with market information and technical data. We can tell you about promising new types of aerosol formulations developed in our laboratories. And we can give you information on how contract fillers can help you, from test marketing right through to full commercial production. The fact is, through the use of contract fillers you can get into aerosols without investing a cent in special equipment or personnel!

Why not take advantage of these General Chemical services *now*? Just call or write.

*Estimated by Market Surveys Department, General Chemical Division, Allied Chemical Corporation.

genetron®
aerosol propellants
Putting the "push" in America's finest aerosols

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

With Bernardin · Quality is a **SERIES** of satisfactions

THE LINER STORY

The liner of a closure must *live with* the product it is helping to seal through months or possibly years. It must fit freely yet securely, and be free of any imperfections in the backing or facing material.

Because so much depends on the liner, it must be under constant scrutiny through each of many inspections until it is an integral part of the closure.

You see here, a liner being studied after a series of tests. Around the liner, as around *each* step in Bernardin production, both automatic and manual controls guard the quality of that step to insure quality in each different function from capping line to the consumer's ultimate possession. That is why Bernardin follows its exacting manufacturing process—to insure Quality that provides a whole *series* of satisfactions.

QUALITY METAL AND PLASTIC CLOSURES BY

BERNARDIN

Bernardin Bottle Cap Co., Evansville, Ind.


pert in glowing color...
here your printing ink dollar buys more

experts
make the best impression

Printers are sure of getting the best impressions everytime they go to press . . . when they combine efforts with the ink experts at S&V. Backed by Sinclair and Valentine Co.'s coordinated program of research, quality control and technical service, S&V's printing ink color engineers are on call at each of the 50 strategically located S&V plants. They are available to help you reach maximum, economical production on every run. Work with them on your next job . . . the combination of expert skills will result in superior performance and more for your printing ink dolla

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PLUS REAL COFFEE FLAVOR AND

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20,000,000 CUPS VENDED IN 50 CITIES PROVE SUPERIORITY OF NEW, PATENTED CUP!

Consumers love these new cups because they deliver true flavor and aroma of the coffee, the precision engineered "easy grip" has universal appeal. Machine service costs are cut because cup jams are ended. They're priced competitively with paper cups. Just send the coupon for full information.

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FASTEX PACKAGING DIVISION
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Please send me the Fastex® all-plastic coffee vending cup story.

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PRECISION ENGINEERED MASS PRODUCTION

DOW | **FROM PACKAGING CHEMISTRY, A BETTER WAY**

A package today has to do more than protect what's inside it. To survive in the fierce competitive battle for shelf space, a package has to be its product's eye-catcher, merchandiser and salesman. Through packaging chemistry, Dow materials are helping pace the development of packages that meet modern sales needs. Several of these new packages are shown on these pages. There are many more where they came from.

New Twists With Styron Give Old Products New Impact

Every package in this picture has one thing in comme n—Styron® has helped make the product inside it sell faster.

Dairymen have learned that cottage cheese sales curves can go from dul to sensational with the added impac of plastic packaging. Plastic containe made of Styron—with attractive colo and design built in—make table-read packages shoppers can't resist. An they do their jobs efficiently an economically.

Injection molded closures made o Styron have captured the fancy o bottlers because they can be made a high speeds, resulting in economie on large production runs. They len themselves nicely to intricate decora tive effects. Outstanding premiu package potential here.

Dow research, teamed with industry assisted in the development of the en caps made of Styron. A brand-new low-cost package that effectively wed plastic and other materials to do a better job. Tops and bottoms of Styro come in decorator colors, won't scratch won't leave unsightly rust rings.

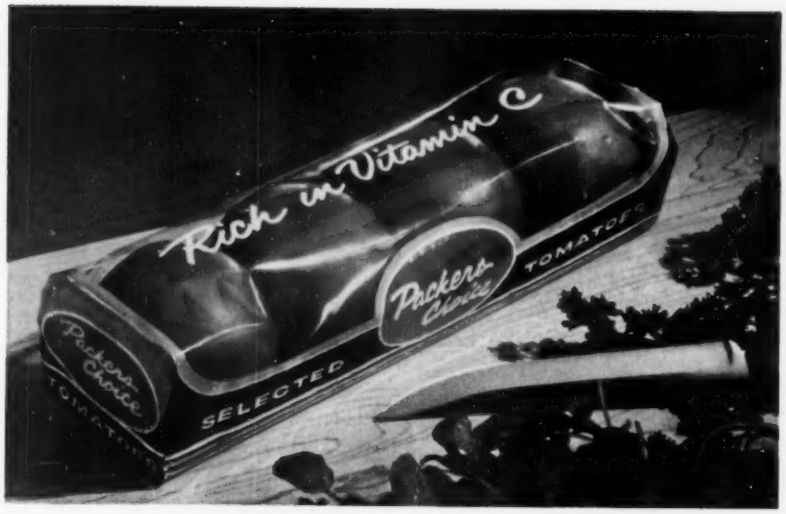
When a product has to be show cased as well as protected—like th sensitive timer device in the picture nothing does it like Styron. Tough clear Styron gets it there safely, help *sell* it through low-cost visual sales manship.

Packaging with Styron is functional economical, and highly merchandis able. Don't these packages sugges ways Styron could help *your* produc sell faster?

LOW-COST, PICTURE WINDOW

protection for produce

Better packaging at the produce counter is moving more volume with less employee attention. And of all the new produce packaging ideas, one of the best is this tomato pack, combining paper and Trycite*. This economical new polystyrene film went to work when packers asked for a more functional, more economical film for produce. It breathes, allowing just the right amount of fresh air produce needs, yet has outstanding aging characteristics for better protection. It's sparkling clear, prints admirably, and won't wrinkle. If you're in produce, meat, baked goods, or window envelopes, you need Trycite. Maybe you need its low-cost sales power whatever you're in. *TRADEMARK



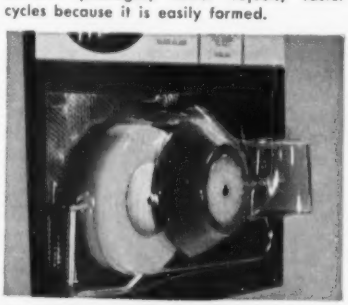
BOXBOARD CONTAINERS

and a coating idea

Dow doesn't make boxboard, doesn't even pretend to be an expert on boxboard containers. But through packaging chemistry, Dow has become a major factor in helping boxboard people and their customers boost sales. How? Through latex coating. Dow Latex in the clay coating adds a new dimension of printability to boxboard that makes color reproduction just about as good as you can get it. Latex benefits don't stop there, either. The latex makes the coating more elastic—provides better freedom from cracking at the folds. Paperboard suppliers have latex coated grades—ask for them—you'll have a better looking package.

OTHER CHEMICALLY ENGINEERED PACKAGES WELL WORTH NOTING

Specialty packaging. Ideal for vacuum or drawn blisters, Ethocel® offers excellent physical properties for eye-catching, uniform packages, fewer rejects, faster cycles because it is easily formed.



Upgraded packaging films. A coating of Saran Resin on packaging films reduces moisture-vapor transmission, increases clarity, improves resistance to grease, oils, water, organic liquids and vapors.

Kitchen-fresh appeal. Crystal clear Styron plastic containers put delicatessen foods on display . . . reduce breakage . . . simplify handling . . . multiply sales of "fresh daily" foods.

You're Missing Something if you're not keeping abreast of the dynamic things happening in packaging chemistry. Dow serves this industry with better materials and know-how, and provides prompt attention to any problem we can help solve. We may have an idea or two that could help you.

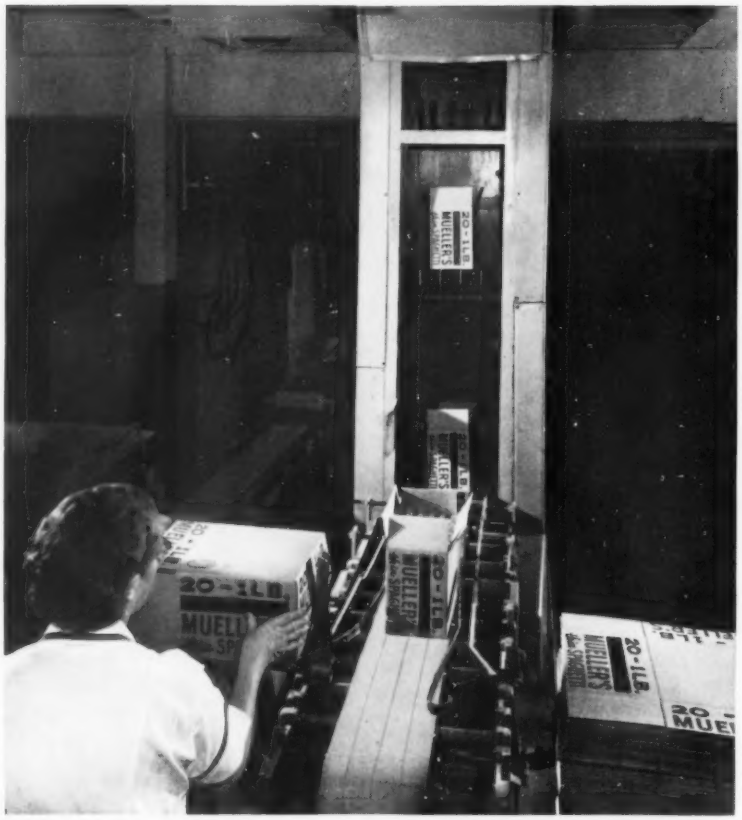
DOW PLASTICS BASIC TO PACKAGING

Molding Materials • Films • Film Resins
Sheeting • Coatings • Expandable Beads

THE DOW CHEMICAL COMPANY

Midland, Michigan

DOW



Space-Saving Tray Elevator Boosts Mueller Production!

Because this Robo-Lift Tray Elevator ascends straight up, C. F. Mueller Co., Jersey City, increased production without costly remodeling. To cope with stepped-up consumer demand, the nation's largest macaroni manufacturer rearranged and increased the capacity of its product weighing, packaging, cartoning and sealing operations. To hike the output, engineers placed the automatic sealing unit high above floor level. However, due to cramped quarters, a vertical elevator was needed to carry product-filled cartons to the sealer.

Only the Lynch Robo-Lift Tray Elevator met all requirements and specifications.

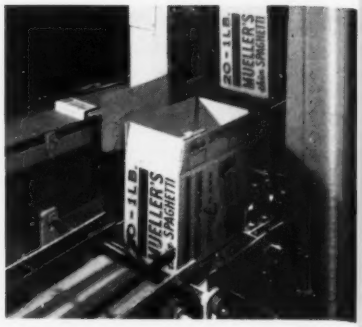
Space-saving and jam-proof, the automatic upright operates a sixteen-hour shift, handling cartons at the prescribed rate of six-per-minute. Featuring unique infeed and discharge systems, the elevator cannot jam —ever. And, unlike bar and belt-type models, it doesn't mar or rub a carton's printed message. Through fixed positioning of trays, pendulum action is eliminated and cartons ride safe, secure, easy.

Robo-Lift Tray Elevators are available for a variety of lifting or *lowering* assignments. For full details on how Tray Elevators serve, request free literature, today.

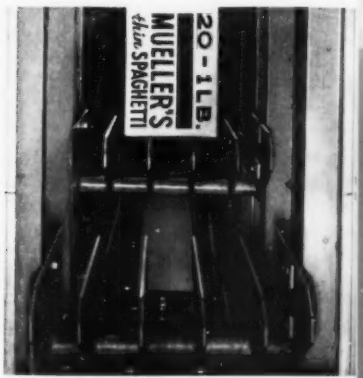
Write for illustrated booklet which details the complete story titled, "LYNCH Robo-Lift Tray Elevator . . . moves cartons vertically, saves time, money, floor space at C. F. Mueller Company."

Lynch Corporation—*Manufacturing Engineers of automatic processing equipment for the glass, packaging, plastic and other industries.*

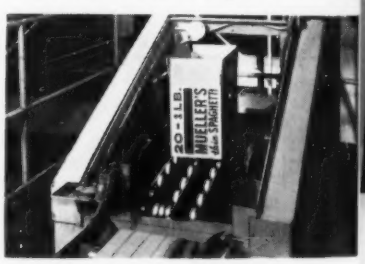
Atlanta • Chicago • Wallington, N.J. • Kansas City, Kansas • San Francisco



Close-up shows a filled carton beginning its gentle Tray Elevator ride upward. In the foreground, the next carton in line has moved off conveyor belt and is automatically held back until oncoming tray appears.



Moving straight up, the carton rests on a fixed, non-pendulum tray that neither swings nor sways . . . always holds carton steady, secure. Note how carton's open end bottom is held in a closed position until it reaches the sealing unit.



Just beneath the room's ceiling, the carton leaves the tray via rollers. Conveyor belt then takes over, moving carton through the sealing operation. Although a six-per-minute schedule is timed here, the elevator can move up to 15 cartons every minute.

LYNCH
CORPORATION
Anderson, Indiana

GLITTER PACKAGES

TOP PROTECTION BY

ALCOA WRAP

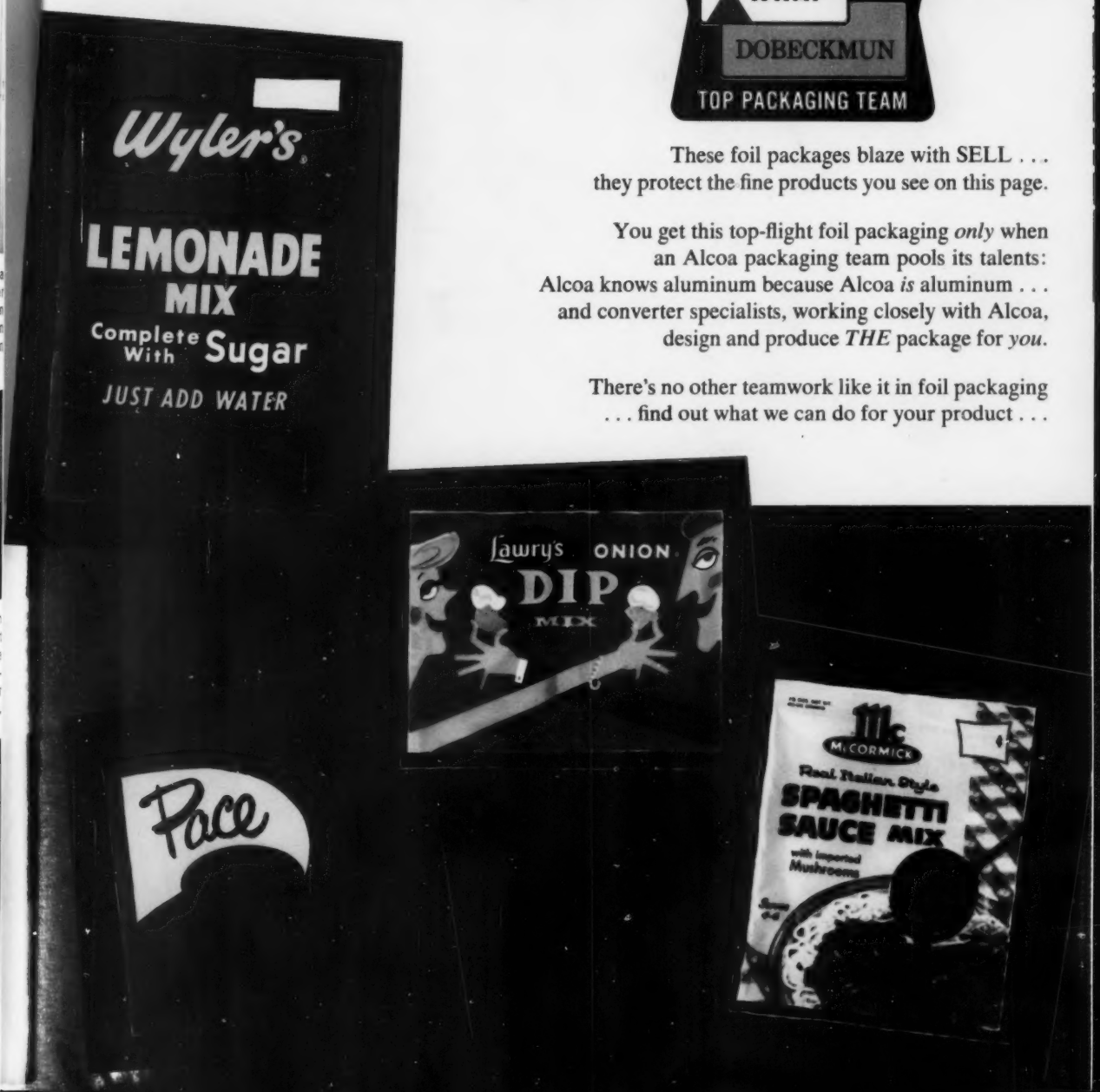
DOBECKMUN

TOP PACKAGING TEAM

These foil packages blaze with SELL . . .
they protect the fine products you see on this page.

You get this top-flight foil packaging *only* when
an Alcoa packaging team pools its talents:
Alcoa knows aluminum because Alcoa *is* aluminum . . .
and converter specialists, working closely with Alcoa,
design and produce *THE* package for *you*.

There's no other teamwork like it in foil packaging
. . . find out what we can do for your product . . .



How to change the course of your business with the right change in packaging

Naturally, that's what you'd like to do ... the question is HOW? The answer could be right in this label

BETTER PACKAGING
ALCOA. WRAP
ALUMINUM COMPANY OF AMERICA

Exactly what does this label mean?

It means—Alcoa, with the greatest fund of aluminum knowledge in the world . . . Alcoa, with the only full-scale packaging laboratory in the country, where we can test ideas, check costs, answer all problems from design to package performance . . . Alcoa, teamed with their converter specialists to provide so much more than any single company can—top facilities, top service, top know-how, all along the line.

Does your packaging need improving? Whatever your plans or problems, we're all set to tackle them. Call your Alcoa salesman or write Aluminum Company of America, 1655-G Alcoa Building, Pittsburgh 19, Pa.

You're always ahead with Alcoa . . . greatest name in aluminum

World Report

Abstracts from foreign packaging magazines

RUSSIA

World's "most mechanized" sardine packing plant

At a press conference to give his views on the importance to Great Britain of maintaining and developing trade relations with the USSR, William Loris Mather, Mather & Pratt, Ltd., British machinery manufacturers, referred to the packing lines his company is installing in a Russian sardine plant. In *Packaging* (England), he is quoted as saying: "This plant, it is believed, will be the most highly mechanized sardine plant in the world and will represent an approach to full automation. The reason given by the Russians for requiring such a fully mechanized plant is interesting in itself. Within two years, they say, every worker will have had at least two years' secondary education and it will be a waste of such knowledge to use a worker's services for wholly manual abilities alone. This is an interesting conception of, and attitude towards, educational needs. It shows how different many of the Russian ways of thought are from our own."

Mr. Mather made a point of the fact that there has been very little American canning equipment installed so far in Russia, "though the Americans can offer some very high-production lines," he said.

ENGLAND

New rigid box set-up system

A new type of box blank supplied in the flat, but which can be erected on special equipment in the user's plant, is described in *Packaging* (England). Since the blanks are erected only as needed, the system is pointed out as a means for cutting handling, shipping and storage costs. The boxes, which are rigid when set up, have been designed particularly for use in the clothing, shoe and hosiery industries, but should also have application in the food, confectionery and other fields. Two types of erecting equipment are available—one for small users and one to meet larger requirements capable of producing 1,600 boxes per day. The standard machine will handle boxes from 3¼ to 11½ in. wide, 5¾ in. long and upwards, ¾ to 6 in. deep (with ½-in. turnover). Principle of the operation is the design of the blanks and equipment so that latex adhesives on opposing surfaces are brought into contact when the box walls are in fully erected position, providing a durable bond.

SWITZERLAND

New opaque flexible packaging material

A new opaque flexible packaging material that does not employ aluminum foil as the barrier, but relies entirely on the properties of specially treated paper to exclude ultraviolet radiation, is announced by a Swiss converting concern in *Tara* (Switzerland). Aluminum foil, it is stated, is of course perfectly effective, but is sometimes too costly for many applications. The manufacturers of the new material, called "Iscofol," have set out to produce a heat-sealing laminated paper which, like foil, will provide a complete barrier to light throughout the entire range of the spectrum from ultra violet to infra red, or from 10 to more than 800 millimicrons. The product does not offer competition to foil, since its appearance and character are so different, it is stated. Foil has brilliance which the paper material cannot emulate, but there is a gap which the new material can fill most effectively, it is pointed out.

Opacity is obtained by incorporation of a protective pigment in one or more layers of a plastic lacquer. Embodied in the plastics medium is a metallic powder produced especially for this process and which, despite its great covering power, yields a silvery sheen. Compared with metallic foil, Iscofol will maintain its opacity even when creased and folded, it is claimed. Even after being completely crumpled, a sheet of the new material may be flattened out and found to maintain its original opacity. Tests in the food industry and by research organizations indicate that the material is particularly suitable for sensitive food products due to its resistance to water vapor, gases, light and greases. Full value of the material cannot be obtained unless the package is sealed effectively and for this reason it is particularly recommended for use on automatic wrapping or overwrapping machinery.

NORWAY

Fully automatic vacuum-packaging machine

A new Norwegian machine designed for fully automatic packing of cooked meats, sliced sausages, bacon and other items under gas or vacuum, operating from two webs taken from reels, is described in *Packaging* (England). The goods to be packed are placed on the lower web (in the case of sliced meats, in "shingled" arrangement), directly loaded thereonto from the slicer, which can be synchronized to work in conjunction with the wrapping machine. The quantity of slices, their spacing and the size of the package to be formed are easily adjustable and readily controlled. The machine can be handled by one operator, who is required only for placing the ham or sausage in the slicer and starting the wrapping machine. The machine can be used either for producing a conventional package, in which case the two webs of film are sealed together on four sides or, for vacuum sealing, a special sealing unit comes into operation, leaving an opening in one of the seams for the evacuation of air in a separate vacuumizer with built-in, heat-sealing unit. The rate of speeds depends mainly on the output of the slicer. Normally one can expect to slice and pack up to 96 slices per minute, equal to about 80 lbs. per hour. The size of the package may range in length up to 12 in. and in width from 6 to 12 in. It is also feasible to pack two in two rows. An electric eye controls printing registration.

HOLLAND

Package machinery development

The Netherlands is growing in importance as a producer of package machinery that is finding a ready market abroad, according to *Packaging* (England), which discusses three of these developments in a recent issue. One is a lined-carton filling and sealing machine developed with some reportedly original and highly effective mechanisms. The carton feed consists of a horizontal hopper in which the flat cartons are stacked vertically and withdrawn by the movement of a vertical blade which enters the first carton in the stack from beneath, erecting it in one of the U-shaped pockets which are mounted on a horizontally moving conveyor chain. A thin steel finger, entering from the side, partially opens the bottom flaps before the blade moves up, to insure a smooth entry. The blanks in the hopper are pressed forward by means of a simple device—a weight suspended by a cord that runs over a pulley and applies pressure to the rear of the carton hopper.

A chain conveyor provided with U-shaped pockets molded of aluminum alloy travels right around the machine, moving intermittently by the action of a Maltese-cross mechanism. Because the erected cartons do not at any point leave the

U-shaped pockets mounted on this chain, every subsequent function of the machine is reportedly accurate, both in respect to alignment and synchronization. In other words, at each of the eight stations, every function is fully controlled by the actual movement of the endless chain. Closing and sealing of base flaps is done in the conventional manner, using vinyl adhesive.

The familiar Hansella unit packaging machines that automatically form, fill and seal packets from heat-sealing materials are now being made in a small village called Weert near the Belgium border. This plant at Weert has taken over the whole production and further development of these machines from the Hansella plant in Germany, which now confines itself to production machinery for the confectionery industry. "And beyond a doubt," says *Packaging*, "since the machines are built in Weert, they have much improved in performance, dependability as well as versatility."

What is reportedly the fastest polyethylene bag-making machine in the world, equipped with an entirely redesigned auto-stacking unit, is being made in Holland. The machine has a single-line (maximum bag size) production of 300 bags per minute; double-line and triple-line production on smaller sizes of 600 and 900 bags per minute, respectively. The completed bags either can be re-wound into a roll, from which the bags may be parted by means of a perforated line allowing them to be cleanly separated by tearing; or the new auto-stacking device will separate them first and stack them automatically as separate bags ready for placing into shipping containers.

ENGLAND

Ring-fold closure for polyethylene bags

Closing bags made of polyethylene and other plastics materials which do not require a hermetic seal by means of a polyethylene ring applied by machine is described in *Packaging Review* (England). The bags may be opened easily by pulling on the projecting edges of the closure ring. The rings are supplied in batches of 500, mounted on a polyethylene core tube looped at one end and plugged at the other. They are fed to the machine by removing the plug and pushing the end of the core tube over the upper end of the mandrel, located at the front, and are allowed to drop singly into the sealing position. The neck of the bag for sealing is placed in the hook-shaped lower mandrel and a sealing ring is forced over it, folding and sealing the bag. Quickly interchangeable mandrels for each of the three sizes of sealing rings are supplied.

SWITZERLAND

After-closing-hour vending

A department store in Zurich has opened a big automatic vending installation with a choice of more than 400 articles—almost the whole assortment of wares offered by the store—which can be purchased after closing hours, according to *Automaten Markt* (West Germany). In this way, the store is demonstrating its progressiveness toward 24-hr. consumer service, the article states. The assortment of merchandise to be had from the vending machines is based on a study of all those articles most easily forgotten during daily shopping and cause inconvenience when not available. The giant installation is mounted on an elevatory platform, electrically driven, located in the basement of the store. After closing time, the entire platform rises, positioning the vendors just in front of the main entrance.

Thirteen columns of the machine offer packaged chocolate and cigarettes of different brands. Forty-eight compartments are reserved for foodstuffs essential for daily menus, or handy in case of unexpected guests. Packaged ready-to-serve meats, salads, sandwiches, potato chips and canned meats are included. Toiletries items are available in 72 compartments. Other channels hold photographic supplies for unexpected excursions; stationery, toys, hosiery, shirts and household electrical supplies. Needs for practically all activities of daily life are covered.

Two coin changers complete the "sales robot." And the store owner decided to have the front area where the machines are located equipped for heating so that shoppers may select their purchases in comfort during cold weather.

ENGLAND

International automatic vending exhibition

Interest of packagers in automatic selling was indicated by the large crowds attending the first International Automatic Vending Exhibition in London during March, according to *Packaging* (England). Machines exhibited dispensed everything from ready-heated tins of baked beans and spaghetti to gin-and-lime. "You may not see gin-and-lime machines on every street corner," the article states, "but you may soon see them in saloon bars." Besides gin, the machine could serve Scotch or a perfectly mixed Martini. Most of the exhibitors, however, directed interest to vending machines for packaged items in industrial plants to replace ordinary canteens for in-plant feeding.

GERMANY

Dry offset printing on plastic containers

Multicolor effects reportedly superior to silk screen in many respects and at less cost are possible with new German dry offset machines described in *Packaging* (England). One of the advantages of dry offset pointed out is the use of relatively cheap zinc or rubber stereos which can be easily mounted on the plate cylinders, allowing for quick make-ready. Another feature is the possibility of printing colors on top of each other when the ink is still wet; that is, wet-on-wet, with all colors in very accurate register. The German firm is offering a series of machines which can be built into a fully automatic production line, making the production of plastic bottles and tubes with quality multicolor printing an economical proposition, the article states.

DENMARK

High-speed flexographic printer

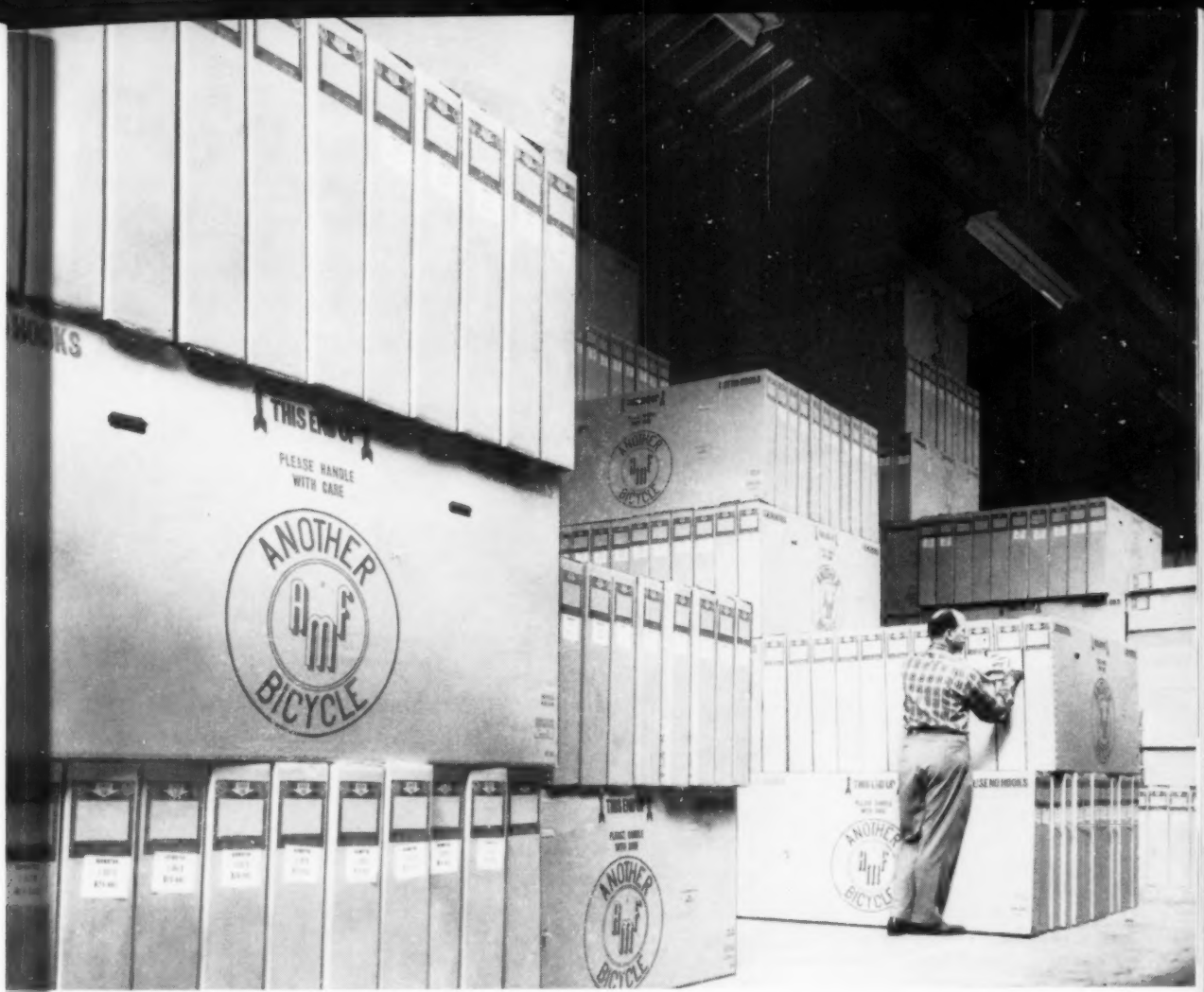
Production of up to four-color flexographic printing at high speed and resembling rotogravure is claimed for a new flexographic machine manufactured in Denmark. According to reports in *Packaging Review* (England), the machine prints at considerably lower cost multicolor work on paper, foil, paperboard, transparent films, glassine and polyethylene. Its design is to close tolerances. High-circulation hot air and infra-red jet devices permit high-speed printing on porous stock. The machine is built in sections, each section a two-color printing unit. Single sections can be supplied or up to four sections may be used, permitting up to eight-color printing.

ENGLAND

Rigid polyethylene for stencils

Lightweight, unbreakable stencils for marking shipping cases are being made in England of extruded rigid polyethylene sheet that is lightweight, unbreakable and reportedly does not warp or buckle. According to British *Packaging*, the stencils are cut from 0.020, 0.025 and 0.030 sheet, depending on the area of the stencil and the size of the lettering. While essentially rigid, they will flex to fit virtually any contour. And because of the inertness of the material, the stencils are easy to clean. Most inks can be washed off and paint needs only to be wiped away.

For additional information, write: World Report Editor, MODERN PACKAGING, 575 Madison Ave., New York 22.



Warehouse at American Machine and Foundry Company's AMF Cycle Division plant, Little Rock, Arkansas

HOERNER-DESIGNED CORRUGATED CONTAINERS

CUT STORAGE COSTS...PROVIDE GREATER SHIPPING PROTECTION

One of the problems facing the American Machine and Foundry Company's Cycle Division plant at Little Rock, Arkansas, was storage. The space was there but the cartons in which they shipped their high quality bicycles were not strong enough to allow stacking more than 12 feet high. After that the containers were prone to collapse.

Another problem was shipping damage. The inner packing of the old cartons did not hold the bicycles securely in place during shipment.

A Hoerner Packaging Engineer* was called in from Hoerner's nearby Little Rock Plant. Working closely with AMF personnel, he designed a new carton that solved the storage space problem and provided greater protection of AMF bicycles in shipment.

A new inner packing was the answer. It provided additional strength and securely braced the bicycle against loose movement in transit.

The added strength of the new containers means AMF can now stack their bicycles up to the warehouse ceiling which is 20 feet high. This increased storage by approximately 40% — eliminated the cost of leasing warehouse space outside the AMF plant.

The new inner packing also braces the bicycles snugly inside the carton. They cannot move around in shipment. Eliminates customer rejects due to shipping damage. Also, the same pieces of inner packing can be used on all AMF bicycles regardless of cycle or outer carton size . . . saves AMF time in carton assembly and packaging.

HOW A HOERNER PACKAGING ENGINEER CAN HELP YOU

If you package things, call the Hoerner plant nearest you. A Packaging Engineer will study your operation without obligation. He can increase your profit margin by reducing labor and material costs and shipping losses. All through improved packaging with corrugated. Call today.

*Packaging Engineer responsible: Dick Troll; Designer: Gene Carter

HOERNER BOXES, INC.

Corrugated Specialists for Mid-America

GENERAL OFFICES: 600 Morgan St., Keokuk, Iowa. **PLANTS:** Fort Smith and Little Rock, Arkansas; Des Moines, Keokuk, and Ottumwa, Iowa; Minneapolis, Minnesota; Sand Springs, Oklahoma; Sioux Falls, South Dakota; Fort Worth, Texas. **AFFILIATE:** Cajas y Empaques Impermeables, S.A. Mexico City D.F., Mexico

Manufacturers of consumer products using container caps know tha BEETLE® plastic has never failed them in twenty-five years of steady use. Even perfume esters and acetone solvents make no headway agains molded BEETLE urea. On the shelf, BEETLE closures won't build up electrostatic charges that attract unsightly dust. And they hold firm and tight during shipment and storage. BEETLE comes in any color, can be molded in practically any shape, to fit any design. Keep your customers happy and content by specifying BEETLE plastic caps every time

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Award-Winning Flexible Packaging
Produced by Dixie Wax Paper Company,
Printed on Champlain Equipment.

Once again... Champlain Equipment Helps Produce Award Winning Packages...

In the Third Annual Flexible Packaging Competition, Champlain has again been a member of the team which produced Award-Winning Packages. Some are illustrated here. In fact, 16 of the 23 Award Winners in this national competition were printed by companies who have Champlain rotogravure presses. This kind of achievement is typical of Champlain equipment. For example, in the 1958 Carton Competition of the Folding Box Association, packages printed on Champlain presses scored impressively.

In today's highly competitive field of mass merchandising, the appeal of a product's package is often the bridge between shelf and shopping bag. Where fine printed results and operating economy are required – on a wide variety of packaging materials – *a performance-proved Champlain rotogravure installation is the best assurance of top performance.*

Champlain

Champlain Company, Inc., Harrison Avenue, Roseland, N.J.
Chicago Office: 7356 N. Cicero Avenue, Chicago 46, Ill.
In Europe: Bobst-Champlain, Prilly-Lausanne, Switzerland

1589

The case of the suspiciously stained shirt

MISS WATSON: Where have you been all day, Fearless? I've had several calls for you.

FEARLESS FULLER: I became involved in a very interesting case and the time just flew by.

MISS WATSON: I can imagine, if that lipstick stain on your collar is any indication!

FEARLESS FULLER: Hush your suspicions, Miss Watson. That stain happens to be cranberry juice.

MISS WATSON: Cranberry juice?

FEARLESS FULLER: Yes. It seems one of the local cranberry canners was using an adhesive other than Fuller's and had trouble with his labels sticking.

MISS WATSON: I trust you solved the problem.

FEARLESS FULLER: Naturally. After much investigation, I recommended switching to one of our Fuller adhesives. For positive, trouble-free labeling at any can temperature you can't beat Fuller's.

MISS WATSON: Yes, but that still doesn't explain that stain on your shirt collar.

FEARLESS FULLER: It does if you remember what Fuller men are noted for.

MISS WATSON: Shirtsleeve service?

FEARLESS FULLER: That's right. We at Fuller aren't afraid to roll up our sleeves and pitch right in until a problem is solved. We use our hands as well as our heads.

MISS WATSON: Oh, you're marvelous at solving these cases, Fearless. I'll bet your pipe even contains a thinking man's filter.

FEARLESS FULLER: No, Miss Watson, it's just that a Fuller man always knows the solution to adhesive problems.

Your Fuller man is ready with the correct solutions on any adhesive problems for you, too. Contact your nearby plant.

H.B. Fuller Co.

255 Eagle Street, St. Paul 2, Minn.

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CINCINNATI, OHIO • DALLAS, TEX. • KANSAS CITY, MO.
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PORTLAND, ORE. • SO. SAN FRANCISCO, CALIF. • TAMPA, FLA.
also WINNIPEG, CANADA

Editorial Memo

Packager: a new dimension

Use of the term "packager" to define any manufacturer who surrounds his finished product with a container tells only half the story. It is an increasingly inexact word because it fails to distinguish between two types of packagers: (1) those who regard packaging as merely an incidental step in manufacturing and (2) those companies—in increasing number—that recognize packaging as a professional activity requiring specialized knowledge and worthy of management-level responsibility and authority.

In a matter of months, four "packagers" whose brand names are hallmarks of American merchandising have independently taken new steps that reflect corporate conviction about the role and rewards of packaging when placed in a top-management atmosphere:

General Foods, for one, has created a new position—Vice President, Packaging and Special Products—and has added the first man in this job, Parlin Lillard, to its Executive Council. Under GF's set-up, responsibility for packaging decisions remains with division managers, but the new vice president will plan and direct a balanced program of packaging development, employ research and consult with suppliers and any other available sources of assistance which will gain for GF "the advantages and potentialities which we believe are available to us in the packaging area." A dividend to the company is expected to come from advance and continuing contact with suppliers rather than crash sessions when problems occur. The holder of this top management job reports to the executive vice president and he supervises packaging research at GF's new Tarrytown (N. Y.) Research Center.

Almost simultaneously, two major meat packers—Armour and Hormel—have taken equally significant steps by consolidating all packaging activities in separate departments headed by C. D. Schoby at Armour and E. P. Maus at Hormel. At both companies the emphasis is on package engineering, research and design as well as purchasing.

And just this month (see page 108) there is disclosed a training program at E. R. Squibb & Sons designed to provide young industrial and mechanical engineers with the specialized information of packaging materials and machinery they will need as packaging engineers of the future. Key to this project is a unique series of working sessions at plants of the company's suppliers, supplemented by indoctrination in Squibb plants, meetings with headquarters executives and field trips.

These steps—high-level stature for company packaging executives, departmental status for the packaging function and intensive training for tomorrow's packaging experts—are evidence that the packaging function in its highest professional sense is winning new and deserved recognition, support and authority in outstanding corporate organizations.

The Editors

Modern Packaging, Executive-Editorial Offices, 575 Madison Ave., New York 22.

It is the talent of the maker that creates the worth of any paper product . . . and it is this same "Touch of Talent" that Nashua uses to design and print, hard-sell packaging for you.

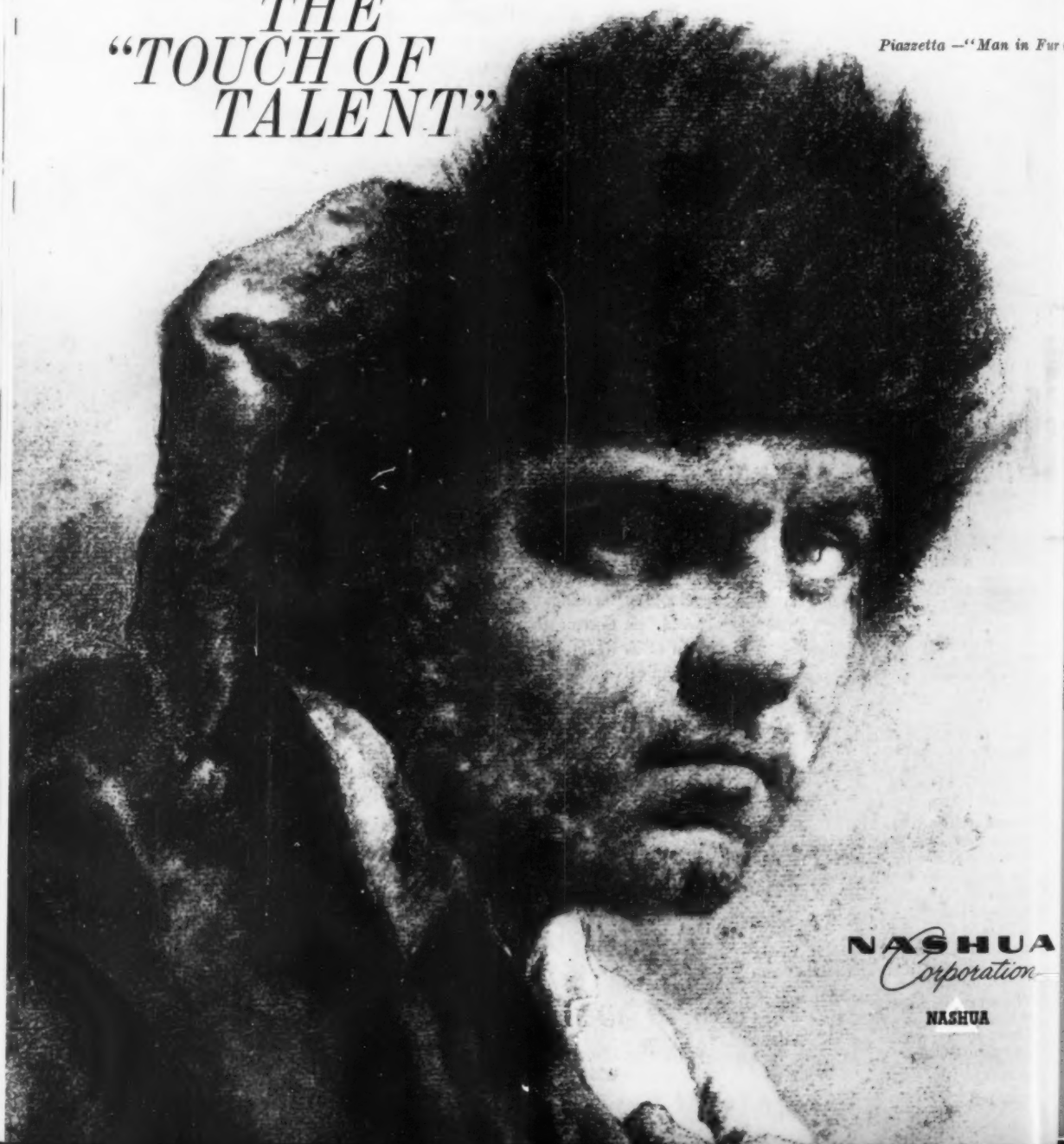
NASHUA Talents Available To You . . . Creative Design • Paper Chemistry • Package Engineering Coordinated Packaging • Quality Production • Procurement Versatility • Nashua Corp., Nashua, N.H.

Venetian papers of the early 17th century were gene known for their excellence . . .

. . . but it still took the talent of Piazzetta to trans this paper into a museum piece.

PAPER NEEDS THE "TOUCH OF TALENT"

Piazzetta —"Man in Fur C



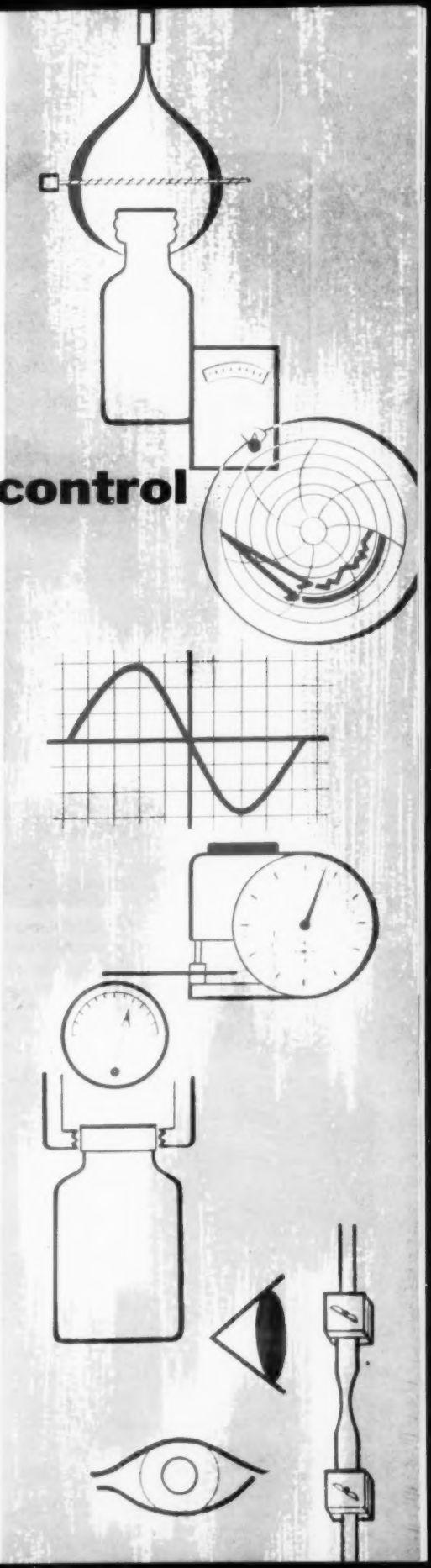
NASHUA Corporation

NASHUA

MODERN PACKAGING
July 1959 Vol. 32 No. 11

New depth in quality control

In a bid for package perfection, companies now employ defect ratings, operate personnel training programs with suppliers and pinpoint specifications for both function and appearance factors



Although all good packagers have long operated under some degree of quality control in their packaging, many marketing-wise and dollar-smart manufacturers are now pushing far beyond the obvious point that outgoing packages must simply be functionally sound and attractive in appearance.

As complex packaging operations become commonplace, as new and sensitive packaging materials jostle established types for acceptance and as the play for consumer approval grows increasingly critical, rigid quality standards throughout the packaging process have become as essential as product quality itself.

To assure more economical production at higher speeds with less down time and minimum use of personnel in costly inspection and trouble-shooting jobs, packagers are increasingly turning to the laboratory, the slide rule and the micrometer. The production objective is, of course, increased output equal to the capacity of the line. Such quality control is, however, simply the technique of strengthening a weak link in the packaging chain—by eliminating in advance packaging flaws that shut down a line, increase rejection rates or scare off repeat customers.

With statistical tools, special cooperative training techniques and practical imagination, package quality-control personnel in these alert companies are probing three questions that may provide the dollar-and-cents answers to avoid competitive trouble:

1. How can quality be so defined that the definition will satisfy the packager, the supplier *and* the consumer?
2. How can packagers assure themselves that incoming packaging materials hew closely to specifications?
3. Can specifications be written for the appearance of a package

PHOTO GENERAL FOODS

Package and product quality *are simultaneously gauged in routine laboratory examinations at Maxwell House. Results are plotted on statistical charts to give management a running picture of plant and supplier efficiency. Here, quality control determines opening torque on capped jars of instant coffee (foreground) and product's flow characteristics (rear).*

as well as for its functional properties?

In association meetings these problems are being debated with some fervor; there are divergent views even within single companies. But a check on 25 leading firms in the food, drug, toiletry and cosmetics industries reveals several new techniques that point up the general trend in quality control today. The following facts appear to be generally recognized:

1. Written definitions of functional quality standards for packages have become almost standard. Now packagers are working more closely with their suppliers—even to operating joint indoctrination programs for new personnel—to insure that no one misjudges the problems or the need for specifications in manufacturing and completing the package.

2. Specifications for package appearance are increasingly more difficult to write because of packaging complexities and many companies not only attempt this task, but supplement these written instructions for inspectors with samples of packages and other visual materials that unmistakably illustrate limits of acceptance.

3. Inspection of incoming packaging materials has grown tremendously, with almost universal use of statistical sampling and evaluation to pinpoint defects for manufacturers. However, packagers decry the need for these elaborate techniques and would like suppliers to enforce stronger control.

4. While permanent or roving line inspectors have always been used individually to check package quality, there now appears to be an increase in the use of both together—with line inspectors responsible to production and roving inspectors more often responsible to the quality-control department. Special group training efforts are on the increase to keep these inspectors at peak efficiency for spotting packaging defects.

Defining quality

A question that has always bothered packagers is whether quality-control standards on appearance reflect only the company's estimation of quality, or whether the consumer is influenced by the same defects.

One attempt to resolve this question through the use of statistical analysis and also to classify the seriousness of both functional and appearance defects in packages has been recently put into operation at Bristol-Myers, a proprietary drug and toiletries manufacturer.

To start this program, representatives from the company's management, sales, production and quality-control departments and an outside statistical expert evaluated all complaints received by the company and all defects in samples drawn from the company's production lines. These hazards were then classified in three categories, which are given point ratings:

1. "Serious" (25 points) includes functional or appearance defects that would probably result in the loss of a customer, such as broken packaging components or short fills.

2. "Moderately serious" (10 points) covers objectionable defects in appearance such as wrinkled, soiled or upside down labels that must be eliminated by line inspectors.

3. "Minor" (two points) encompasses all defects regarded as undesirable, but which would not re-

Pharmaceutical packaging undergoes many checks

PHOTO ORTHO PHARMACEU

Line inspector *scrutinizes all capsuled drugs for perfection of this primary container before they are bottled and cartoned.*

After packaging, *further visual inspection is a vital step in thorough check of all gynecological products.*

Roving inspector *double checks the work done by line control women, here shown examining filled dropper bottles.*

quire the package to be withdrawn from shipment, such as labels placed slightly askew.

In practice, defects picked up through continuous checks on packaged goods are rated by the point system, totaled and reduced to the number of defect points per 100 containers. This figure is plotted on a control chart that has acceptable limits established by standard statistical calculations. The result is a running picture of packaging quality that the Bristol-Myers management feels reflects how the product and package appear to the consumer. It also enables production and quality-control supervisors to check trouble spots instantly. Key supervisors and line operators are indoctrinated in this method of statistical evaluation, are trained in quality-control procedures and are kept constantly informed on the effectiveness of quality control at regular meetings run by the quality-control and production departments.

Specifications for suppliers

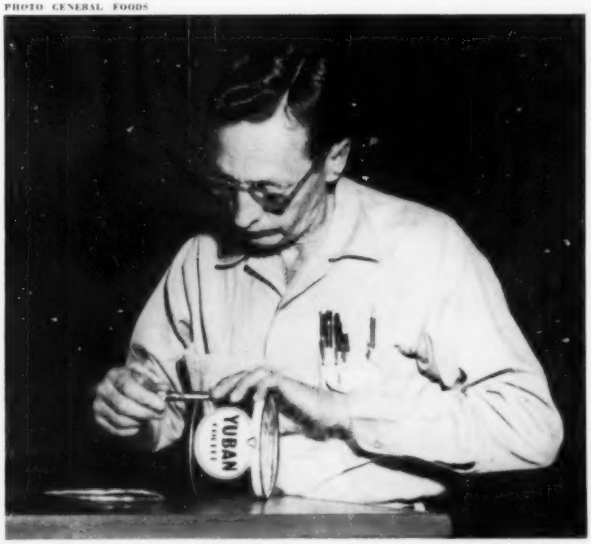
Because no completed package can be any better than the material it is made from, buyers are writing ever tighter specifications to upgrade the quality of incoming packages and materials. Specifications alone, though, are no guarantee that packaging materials will meet rigid quality standards. Therefore, more and more packagers are taking three steps to achieve this assurance:

1. All specifications for packaging materials are checked with the suppliers to make sure that tight tolerances in container size, color fidelity or functional perfection can be met.

2. Statistical sampling and evaluation systems are employed to show accurately how well incoming packages meet specifications and what prevalent defects should be called to the attention of the supplier.

3. Packaging-control personnel are sent to supplier plants to get first-hand knowledge of the capa-

PHOTO GENERAL FOODS



Adherence to specifications *for coffee cans is closely checked by a permanent line inspector at General Foods' Maxwell House Division. Here, control man takes a micrometer reading on can seams. The purpose is to spot functional defects.*

CHARTS BRISTOL-MYERS

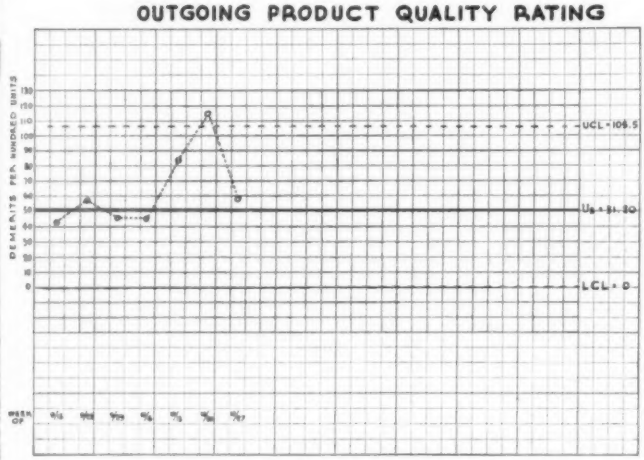
OUTGOING PRODUCT QUALITY RATING

WEEKLY SUMMARY

N	WEEK	C SERIOUS: BROKEN CAP	TOTAL DEMERITS	B MODERATELY SERIOUS LABELLER: LOOSE LABEL	HEAT CROOKED LABEL	SERIOUS WRINKLE	B MODERATELY SERIOUS MATERIALS: HAZY DIRTY LABEL	FAKE FLUID	CRACKED CAP	SCORCHED CELLO	MISCELLANEOUS	TOTAL DEMERITS	A MINOR LABELLER: ILLEG. CODE	CROOKED LABEL	WRINKLED LABEL	EL. LOOSE LABEL	SLIPPED LABEL	DIRTY LABEL	A MINOR MATERIALS: PAINT IMPERFECTION	CAP IMPERFECTION	HOLIDAY IN CAP	SLIGHT PA. FL.	DIRTY CAP	TORN CELLO	DAMAGED CARTON	MISCELLANEOUS	TOTAL DEMERITS	TOTAL DEMERITS PER 100 UNITS PER WEEK
120	9/15							1				10	10		3	3		1	2			2					42	52x.83 = 43
200	9/22						1	1	1			30	2		17	3		3	1		4	3		3	5		82	112x.5 = 56
200	9/29			2				1				50	2	17	2		3				3			1	1	64	94x.5 = 47
200	10/6			1			2	1				40	3	1	4	4	2		4			4		2	2	84	94x.5 = 47
180	10/13				1	2		1	1	1	2	80	4		8	1	1	1	8		4		2		2	70	150x.86 = 84
160	10/20			1		9					1	110			17	2	1	1	5	1	1	3		2	3	5	74	184x.625 = 115
195	10/27					2						20	1		9	4	9	2	2	2	5	2	2		3	4	96	116x.51 = 59

a: Materials b: Labeller c: Filler d: Cartoner

Package defects *are classified at Bristol-Myers and assigned point ratings according to severity. Each week, defects under each point are totaled, multiplied by a demerit rating and then reduced to the number of demerits scored per 100 packaged units (right).*



Running record *of package quality at Bristol-Myers is this statistical chart. Quality range between upper and lower control limits (UCL and LCL lines) is determined by management on the basis of defects observed during a period of good packaging production. Desirable packaging practice keeps defect demerits at or below the normal line (represented by U_b).*

bilities and limitations of manufacturing equipment. In turn, suppliers are invited to tour the packager's lines and talk with key production, sales and quality-control personnel to appreciate better the necessity for rigid tolerances on functional and appearance factors of the package.

One company that has developed an outstanding program incorporating these points is the Maxwell House Div. of General Foods. So successful has been its three-pronged drive for packaging quality that functional defects in vacuum cans have been trimmed to less than 0.3%.

At the Hoboken, N.J., plant, Maxwell House buys its cans from a supplier located in an adjacent plant. Marketing, production, purchasing, research and quality-control personnel confer closely with the supplier—first to establish workable specifications for packages, then to insure that they are met. Since the cans are run by conveyor directly from the supplier to the packager, an inspector samples the containers as they enter the plant for functional and appearance defects. Permanent inspectors at the end of the packaging lines examine completed containers. Quality-control personnel make roving checks at regular intervals. Results of all these tests are plotted on charts and tabulated for management on weekly and monthly reports—a copy of which is given to the supplier to encourage prompt correction of frequent defects.

As part of their initial training, new key employees hired by the supplier are indoctrinated by Maxwell House in the quality-control tests applied to the package. And this educational opportunity is often extended by the supplier to new Maxwell House personnel.

Glass jars have more critical dimensions than cans, making inspection more difficult. Specific problems are attacked by joint packager-supplier effort. In-plant tests by vendors are permitted on occasion. Also a very effective routine system of checking glass shipments for quality has been worked out.

As each truck load or carload of glass is loaded by a supplier, samples are drawn by a random statistical technique and set aside on a special pallet—which is loaded last in the carrier. Thus it is the first pallet unloaded and [*Continued on page 161*]

PHOTO BRISTOL-MYERS

Graphic training *on how a statistical chart works and why a statistical plot is more sensitive to shifts in package quality than examination of single samples is given to both quality control and production personnel at Bristol-Myers. Training courses are conducted once a week for a four- to five-week period and are repeated for new personnel.*

Slick-magazine reproduction, *similar to that used on beer-can six packs, is achieved by Canada Dry on board with the durability necessary for soft-drink field. Four scenes are reproduced by rotogravure from photographic color transparencies.*

Fine screen plus wet strength

With laminated plies of natural and coated bleached kraft, Canada Dry gets light, low-cost carrier, process printed, with multitrip strength for six bottles

Possibility of fine-screen, full-color printing on multitrip soft-drink bottle carriers, similar to that used for beer-can six-packs, is demonstrated by the adoption by Canada Dry of new seven-color rotogravure-printed six-bottle carriers. Surprisingly light in weight, the folding containers are made of specially developed durable, wet-strength 0.020-gauge resin-laminated board comprised of a surface ply of coated bleached kraft combined by a moistureproof adhesive with a ply of natural kraft.

Fine printing, so successful elsewhere in beverage containers, has heretofore been limited in the soft-drink field because of the unavailability of board of known strength characteristics that would stand multiple trippage and delivery in open trucks, and that would, at the same time, successfully take gravure-process engravings.

Now, Canada Dry, in cooperation with the board manufacturer, the producer of the carriers and its engraver, apparently has found the solution. Reportedly, the new carriers will be produced at no increase in cost over gravure line printing when (1) quantities are large enough, with no copy changes, to amortize original cost of process rotogravure cylinders; (2) design elements keep ink costs low; (3) uniform board quality holds spoilage to a minimum.

Four scenes are reproduced on the carriers from photographic color transparencies prepared by Canada Dry's package-design consultants. Close cooperation between engraver and printer assured proofing with actual production board and inks. But during the trial run, apparently in the laminating operation, the coated board had picked up minute surface depressions which caused the printing to have a "snowy" appearance, a common gravure problem. This obstacle was overcome by applying an additional coating to the board in the printing plant prior to the first printing station.

Canada Dry reports that it is now market testing the impact of carriers with the attractiveness and eye appeal of slick-magazine reproduction combined with necessary durability at economical cost.

SUPPLIES AND SERVICES: Carriers by Julian B. Slevin Co., Lansdowne, Pa. Design counsel by Raymond Loewy Associates, 488 Madison Ave., New York 22.

Anti-rust polyester

In what appears to be the first successful use of a volatile corrosion inhibitor in a transparent packaging material, the Lufkin Rule Co. is employing coated polyester film pouches designed to protect and display micrometers made of steel. Not only are these treated packages expected to keep such precision instruments bright for long periods before their initial use, but customers can clearly see the condition of the product and can continue to take advantage of the pouch's corrosion-inhibiting vapors for some time after opening it by merely slipping the instrument back into the package and reclosing the open end. No protective oils or greases are required at any time.

While the use of volatile-corrosion-inhibitor (VCI) materials has long been familiar in paper packaging, the Lufkin packages have the added assets of (1) visibility and (2) the great strength of polyester film.

This packaging advance, which is expected to appeal to many packagers of rust-susceptible metal products, is accomplished by combining VCI chemicals with an organic heat-sealable coating applied to the inside surface of the pouch. The Saginaw, Mich., tool manufacturer buys ready-made pouches in various sizes to fit its micrometers. On delivery, the packages are already folded at one end and heat sealed on both sides. Though the supplier recommends heat sealing the open end, Lufkin has found it satisfactory simply to hand fold it under after hand loading. The pouches are made of a standard 0.002-in. film which, the supplier reports, has a water-vapor-transmission rate of 0.35 gms. per hour per square meter at 25 deg. C. and 50% R. H.

This new packaging material simplifies Lufkin's packaging operations because the company formerly hand wrapped its micrometers in rust-inhibiting paper, a step now eliminated, and then placed them in plain polyethylene bags. The paper was laboriously cut to size and while it did a satisfactory job of rust prevention, it of course gave no product visibility. The added packaging and customer con-

Product visibility *for inspection is assured by VCI-interior-coated pouch into which Lufkin Rule slips its metal micrometers for protection against corrosion. Rust-inhibiting vapors are said to remain effective after opening so container can be continually used for storage of tool.*

pouch

Incorporation of volatile corrosion inhibitor for the first time in a transparent film gives Lufkin micrometers the advantages of simplified packaging and visual check on condition

Neat appearance *of film-wrapped tool in telescoping set-up box contrasts with former wrapping in rust-inhibiting paper that gave no product visibility.*

venience will help overcome the fact that the new pouches cost half again as much as the former paper-pouch combination, Lufkin believes.

The company, which markets a line of 3,800 precision tools and measuring devices, feels that its packaging operations generally do not lend themselves to automatic equipment because so many different sizes and shapes are involved and few individual items sell in sufficient volume to warrant high-speed machinery. A few do, however, and tests have shown that the coated polyester film, which is available in rolls up to 3,000 ft., can be successfully handled by machine. It is possible that Lufkin may switch to automatic packaging equipment for some of the products that it manufactures.

Polyester film is said to give top performance with the VCI coating not only because of its superior strength, low water-vapor-transmission rate and oil resistance, but because it has no built-in corrosion-inducing tendencies as is the case with some thermoplastic films.

The film, which itself doesn't start to soften until it reaches a temperature of 500 deg. F., can be heat sealed at 300 deg. F. by means of the interior coating. Lufkin is not now printing the pouches, but the company plans to do so in the very near future in its own printing plant. The micrometers enclosed in their rust-inhibiting pouches are packaged in a telescoping set-up box.

VCI-coated film has been considered for blister or skin packaging, but problems have arisen because the high heat needed for this procedure may affect the chemicals' effectiveness. However, the use of transparent film packages coated with a volatile corrosion inhibitor should be an added inducement to its use by both industry and the Armed Forces because of the ease of inventory checking through visual inspection of products through their packages, resulting in the saving of time and labor of clerical personnel used for this purpose.

SUPPLIES AND SERVICES: Polyester pouches with VCI heat-sealable "Clear Pak" interior coating by Daubert Chemical Co., 4700 S. Central Ave., Chicago 38, using Du Pont's Mylar polyester film.

Redesign adds new appeal to 87-year-old Pond's line

Pond's, a famous 87-year-old name in cosmetic products, bids for a bigger share of sales in this competitive field with a label-redesign program that is calculated to upgrade family identity and to provide stand-out self-selection appeal on retail counters and shelves.

Warren B. Dubin, brand manager for the Pond's line of Chesebrough-Pond's products, says the new design stemmed from the company's decision that cosmetic packaging for the mass market today must not only stand out visually from the competition, but must also convey the subtle appeals of fashion, femininity and quality.

Family identity has been achieved by use of the same basic design on the oval-shaped paper labels for each product in Pond's glass-packaged line of cosmetics. A graceful "manikin" form on the label (designed for feminine appeal and for impact value) is the backdrop for the packager's logo and for brief product copy. Different-color pastel label backgrounds, with complementary-color "manikins," help shoppers identify the various cosmetics being marketed by the packager. *Label design by Frank Gianninoto & Associates, 133 E. 54 St., New York 22.*

IDEAS

Test it in the carton

The combination of unconventional package shape and of construction that lets shoppers handle the product before they buy is stimulating sales of No-Knot coiled appliance cord, marketed by Cords Limited, DeKalb, Ill. The wedge-shaped new carton represents an effective method for packaging similar "problem" products.

Twin die-cut slits in the apex of the three-sided carton extend down to meet parallel perforation lines in its sloping sides. When this section is pushed down into the carton during the packaging operation, it forms a saddle which supports the coiled appliance cord for display and examination. Cord ends extend through slots die cut in either end of the carton, to afford full visibility of all product components and to keep the cord securely in the package during handling. Shoppers thus can test the cord (made of Du Pont Neoprene), without damage to package or product, by pulling it up and letting it snap back down into place inside the carton opening.

Directional copy printed on the carton invites customers to test the cord's properties of resilience and coil retention. *Carton by Flashfold Box Corp., Fort Wayne, Ind.*

Orange juice in cost-saving, returnable bottles

The introduction of Vita-Pakt homogenized orange juice in quart-size bottles marks the entry of returnable glass containers into another product field. It also represents an interesting adaptation of a proved technique for minimizing the cost of labeling throughout the life of the package, without sacrifice to brand identity. The beverage is being marketed through dairies and food stores in the Middle West by Covina Citrus Corp., Plymouth, Ind.

A stippled surface on the packager's new orange-juice bottle performs both an esthetic and functional service. It provides eye appeal in the store and also makes for slip-resistant handling while the bottle's contents are being poured in the home, thereby minimizing the possibility of accidental breakage.

The Vita-Pakt logo is blown into the bottle's shoulder, thus providing permanent brand identity which eliminates the need for applying a new label each time the returnable container is filled at Covina's plant. Detailed brand and product information are printed on the glass container's pry-off aluminum closure. *Bottle by Owens-Illinois, Toledo 1. Closure by Standard Cap & Seal, Chamblee, Ga.*

IN ACTION

Frozen pie protected in colorful wrapless carton

Wrapless, glue-sealed folding cartons with yellow-tinted interior liners have been adopted for a line of frozen pies marketed by Farm House, Div. Connecticut Pie Baking Co., Wethersfield, Conn.

According to the packager, the colorful new cartons provide excellent long-term protection to frozen foods. They are constructed of wax-laminated board and high-grade printing paper. The laminating material is reported to act as a built-in water-vapor barrier to prevent the contents from drying out in storage. The unwaxed outer surface permits the cartons to be glue sealed and printed with full-color pictorial designs. Among the advantages of glue sealing, the company notes, are that it gives added strength to the package and protects its contents from tactile examination by shoppers.

The yellow-tinted interior liner for the new Farm House packages was adopted after research by the company's carton supplier which indicated that frozen-pie cartons with tinted liners are more appealing to housewives than are those with untinted liners. *Cartons and design by Sutherland Paper Co., Kalamazoo, Mich.*

HOW TO GET COLOR

COLOR PLATES, DESIGN PLANNING ASSOCIATES

WITH ECONOMY

Because face of package is transparent, Elder & Jenks achieves multicolor effect with solid single colors on backing boards of brushes on display. Cost: up 2%. Sales: soaring

Is your company falling behind in the big trend to more colorful packaging and more forceful point-of-purchase display methods—because you think your product can't stand the cost of a change?

Then consider the case of Elder & Jenks, paint-brush manufacturer, whose roots in Philadelphia go back to 1793. For a cost that will work out to about 2% more than that of the previous uninspired packaging, the company has:

1. Achieved a new line of slide-track thermoform packages which give the brush full visibility, facilitate removal for testing of the bristles and, through the use of brightly colored backings, provide both an arresting mass display and color coding of the brush by type.

2. Developed a new brand name and trademark designed to attract the do-it-yourself customer.

3. Produced a self-sealing pegboard display for the hang-up packages which conserves dealer space.

4. Started a positive upturn of sales, as evidenced by the fact that the initial order for 1,000 retailer display units has had to be multiplied several times within a few months.

Profitwise, the 2% additional investment in packaging cost has already been made up many times over by the increased volume of sales.

The project got under way a year ago when Elder & Jenks called in an independent package design firm to do something about its packaging after a management study revealed that one of the company's greatest marketing needs was for better point-of-sale impact.

The designers began by making field trips with company salesmen to observe retailer needs in Elder & Jenks principal outlets—hardware, paint and wallpaper stores and lumber yards.

It did not take long to find out what was wrong. Former green-and-purple, two-color-printed envelopes completely concealed the brushes and offered little to attract the impluse purchase or to inspire the do-it-yourself painter. While professional painters were familiar with Elder & Jenks brushes, this famous old name meant little to the non-professional. What was needed, it was reasoned, was a brand name psychologically suggesting the fun of painting.

Furthermore, construction of the former package left much to be desired. The paper envelopes were equipped with pressure-sensitive adhesive to permit opening and reclosure of the flap for customer ex-

Previously, *packages completely concealed the product, offered little to attract impulse purchase or inspire the do-it-yourself painter.*

Compelling multicolor effect *is achieved in array of new packages with one-color printing of backer cards—each in a different color, coded to handle colors identifying brush sizes. Rainbow array is heightened by solid black background of display unit. Cost-cutting color idea could be applied in other fields.*

amination of bristles—but too often the envelopes were torn in opening, making them unsuitable for replacement in display. Envelopes also tore too frequently because they were not strong enough to support the weight of the brushes when hung up by the punched holes in the envelopes. And the easeled pegboard display then in use took up more store space than was necessary.

The designers quickly realized an entirely new packaging approach was essential. Their first suggestion was the selection of a name that would be descriptive of the product. After consideration of 200 names, "Dip-n-Flo" was chosen.

In planning the package construction the designers took into consideration three basic essentials for successful paint-brush packaging: (1) full visibility of bristle, ferrule and handle; (2) protection of bristles from dust and handling; (3) easy opening and reclosure to allow customers to feel the bristles.

These objectives were realized by adoption of the slide-track transparent acetate blister pack with paperboard backer card, which the company calls "Slip-o-matic," giving complete product visibility and protection, yet permitting easy access to the product if desired.

Most significant of all, an exciting multicolor effect in display was accomplished by an economical procedure that should suggest an idea to packagers in other fields looking for colorful array without the expense of multicolor printing.

The brushes themselves are color coded for size by the color of their handles: blue for a 4-in. brush; yellow for 3½ in.; red for 3 in.; magenta for 2½ in.; green for 2 in.; aqua for 1 in., and so on. The backing card for each package is printed on the show-through face in just one color—the same one that identifies the size of the brush. When all of these colors are massed in display, the effect is eye compelling. And it is heightened further by the use of a solid black spray-painted Masonite display unit on which the brushes are hung.

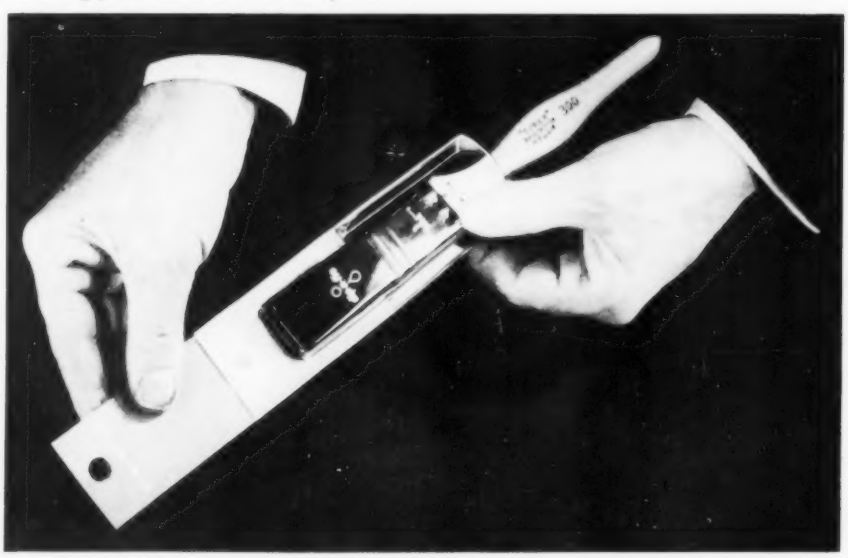
The only printing that is required on the acetate blister is the new brand name, silk screened in white so that it shows up prominently against the black bristles of the brushes. Detailed instructions go on the back of the card.

Space saving that dealers appreciate is achieved by constructing the new display to stand vertically instead of at a tilt-back easeled angle as the former one did, thus eliminating wasted area behind the easel. The vertical construction also permits wall hanging, an aid to winning additional display locations, the company says.

The Elder & Jenks success story is one that could be duplicated by many companies who may have overlooked for too long the profit potentials of improved point-of-sale presentation.

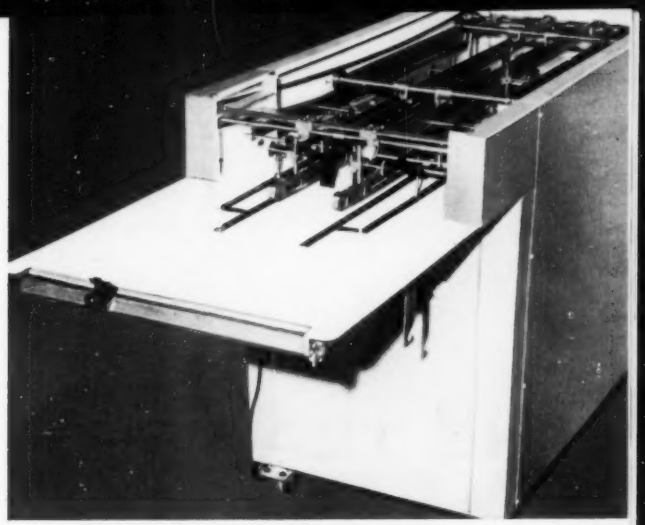
SUPPLIES AND SERVICES: Design program by Design Planning Associates, assisted by Gering Kahana Associates, both at 1617 Pennsylvania Ave., Philadelphia 3. Thermoformed blisters by Contour Packaging, Main & Cotton Sts., Philadelphia 27, using Celanese acetate.

Slide-track construction *which Elder & Jenks calls "Slip-o-matic" is easy on and off for customer examination of bristles.*



New machines at Europak

Among 30,000 visitors at Dutch packaging show, many Americans see new advances in materials and equipment



Semi-automatic wrapper *for awkward textile products combines flexibility of hand wrapping and high speed. Operator wraps product in roll-feed film (foreground) and the package is automatically closed by the band sealer at right.*

Packaging representatives from the United States who were among 30,000 visitors at Europak, the big Dutch packaging exhibition that just completed its fifth biennial run at Amsterdam, saw important developments in machinery for overwrapping, filling, cartoning and vacuum packaging of interest to all manufacturers. Also in evidence were new applications for a French polyamide film, a wide choice of pastel corrugated shippers and convincing proof—in the form of commercial packages—that European use of polyvinyl chloride film and sheet for semi-rigid containers and thin-wall bottles is increasing.

This wealth of new packaging techniques appeared despite the fact that German and other leading Continental machinery suppliers did not exhibit.

In machinery, peak interest was shown in a new semi-automatic overwrapper for cellulosic or thermoplastic films that bridges the gap between standard high-speed machines and hand-wrapping techniques. The unit—designed primarily for flexibility in packaging of textile products—employs an operator to place the product on a sheet of film, drawn from a roll, then automatically forms longitudinal and end seals in a band sealer at the production rate of 10 packs per minute.

Another wrapping machine reduces the problem of film stretch and registration by an intermittent film feed that unwinds five to seven times the material needed for one package, then stops while the slack loop is used up.

Such odd-shaped products as rolls of toilet tissue are now automatically packaged in 70-roll shippers by another machine that assembles stacks of the product, compresses them in a clamp device and inserts them into a corrugated case or paper bag.

In vacuum packaging, a new tray-type machine has a unique device that stretches the mouth of the film bags for packaging bulky foods—thus eliminating wrinkles that might affect the heat seal.

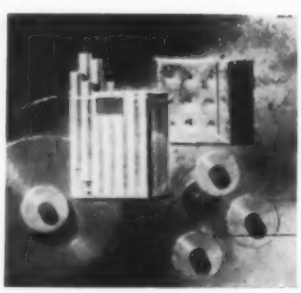
Other important machine developments were: a new forming, filling and sealing machine that thermoforms cups or trays from a continuous web of high-density polyethylene and after filling, seals the packages with a laminated cellulose-polyethylene film; a liquid filler for squeeze bottles that employs a ball valve to replace vacuum devices, and a technique for unitizing loads of shipping cases that makes use of a framework of angle irons steel strapped around the stack of cases.

Cartoning or bagging *machine for such odd-shaped products as toilet tissue compresses stacked product in feeding section (center) and rams it into either flexible or rigid shippers.*

THE TEAR TAPE

The tiny cellophane strip that opens 85 million packages a day was inspired by a packer who demanded a 'can opener' for a sealed wrapper

GREAT PACKAGING DISCOVERIES – 6



THIS MONTH'S COVER

The smallest component of most cellophane-wrapped packages—the colorful cellophane tear tape now so well known that consumers use it almost by reflex action—grew out of the stubborn reaction of a packager who couldn't readily open a film-wrapped package of his own product. Now it is the key to easy opening of nearly 85 million packages a day and the principle—with varying materials and techniques—has been extended even to giant shipping cases big enough to hold a kitchen range.

The late William Wrigley, Jr., was the packager who 28 years ago refused to capitalize on the protective qualities of a new packaging material—sealed, moistureproof cellophane—until he and his customers could break into the tough film wrapper. The Wrigley company's invention of the tear tape did more, however, than solve its own chewing-gum packaging problem, for this device eventually helped to open so many new packaging markets for cellophane that production of both the new film and the tape reached truly astronomical proportions. The tape idea created a small but high-volume supplying industry in which the leading producer today estimates its current annual output would reach the moon and back six times, or tape the earth 112 times at the equator.

Cellophane tear tape clearly qualifies as one of the *Great Packaging Discoveries* for two reasons: (1) it built into the finished cellophane-wrapped package the merchandisable appeal of easy opening, thus putting an end to persistent consumer complaints and (2) it thereby made the earlier important discovery of moistureproof cellophane a more complete packaging triumph.*

The first patented tape, a single layer of red cellophane, was in fact largely responsible for making Wrigley's famous chewing-gum package a member of MODERN PACKAGING's *Packaging's Hall of Fame*.† The first supplier-patented tape, which spread the advantage to hundreds of other products, was two-ply, color-laminated "Zip-Tape" perfected by The Dobeckmun Co., Cleveland, and applied to Brown & Williamson's Kools cigarettes. About the same time, the Walser Mfg. Co. (now Walsello Products, Inc., Paterson, N.J.), another veteran cellophane converter, began supplying tear tapes to other tobacco and gum packagers. These three companies—Wrigley, Dobeckmun and Walser—were the pioneers who together brought the tear-tape idea to the application stage.

Today an estimated 54% of all cellophane tear tapes are applied to tobacco products, 30% to candy and gum, 9% to foods, 3% each to soaps and toiletries, and the remainder to a broad miscellany of other products, including many in cellophane bags. In addition, some tapes carry advertising messages or serve as coding devices to indicate quality groups within brands, or to check turnover and inventory. And the opening-tape idea itself has gone beyond cellophane to create a whole new line of integrated tear tapes of various materials for paperboard packages, foil wraps, fibre cans and corrugated shippers.

In 1931 Wrigley's packaging men had developed a method of solvent sealing a cellophane wrapper for its stick chewing gums. But when this package was shown to Mr. Wrigley, he immediately attacked it with his fingernails. "It's fine," he remarked. "But where is the can opener to get it open?"

Within months, John F. Lindsey—now retired, but then in Wrigley's packaging machinery design department—conceived the idea of providing an opening tab on the package and affixing a gummed cellophane tear strip beneath the clear cello-

*See *Great Packaging Discoveries*, "Moistureproof Cellophane," MODERN PACKAGING, Jan., 1959, p. 82.
†See *Packaging's Hall of Fame*, MODERN PACKAGING, Oct., 1950, p. 104.

phane wrapper. Robert E. Meany—now a Wrigley vice president in charge of machine development and design, but then handling purchasing—located and bought equipment in New York that was being used for slitting ribbon in the millinery business. This put Wrigley into the cellophane-slitting business. Using Du Pont 600-gauge red cellophane, these and other Wrigley men in a group project perfected the tear tape that is still produced by the Wrigley company for its exclusive use.

Wrigley's easy-to-open package was introduced, according to Wrigley's records, on July 25, 1932, and patented in 1935 following application filed in January, 1932. It is little changed today. Wrigley now uses a printed cellophane wrapper incorporating a printed red strip over the red cellophane tear tape, but it long ago abandoned on domestic packages the opening directions, "To open, unwind red tape," used in the early, educational period.

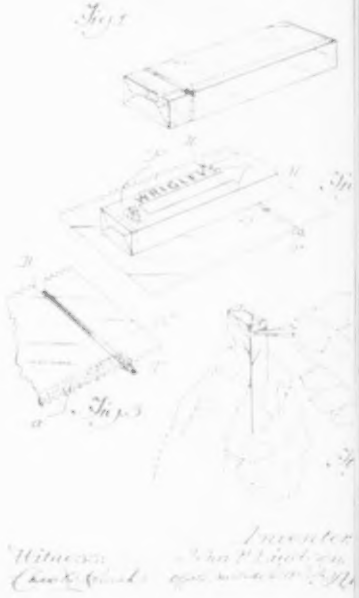
Dobeckmun's role in the development and broader application of cellophane tear tapes was most significant. Here, too, was a team effort, headed by a man who had contributed to the 1927 discovery of moistureproof cellophane itself. Karl E. Prindle, co-inventor of the Du Pont material, had joined Dobeckmun, adding to the latter's know-how in converting (and slitting) cellophane his own intimate knowledge of this new packaging film. For greater tape strength than single-ply cellophane offered and to provide a variety of colors not then available in the film itself, he laminated two layers of clear material with a colored adhesive containing from 10 to 40% pigment, depending on opacity and color desired. And he added a plasticizer to assure stability and flexibility. At first he used a solvent adhesive to adhere the tape to the package, but this is now giving way to hot wax.

These laboratory accomplishments were matched by mechanical achievements in Dobeckmun's plant. To provide the shatter-free edge that would prevent breaks in the tape in use, a technical team perfected precision rotary knives capable of slitting cellophane webs to widths as narrow as 1/64 in. The development team consisted of Ross Betts, now engineering vice president, but then plant manager; the late Walter Woehlert, designer and development engineer, and the late David Schmidt, master mechanic. Today, Dobeckmun simultaneously slits and spool winds more than 100 strips of tape on high-speed equipment whose design and operation are jealously guarded from prying eyes. Each standard 2-lb. spool holds three miles of tape, enough for 27,850 packs of cigarettes.

Until five years ago, the mechanical attachments that applied tear tapes during wrapping and sealing were designed by equipment makers for use on specialized high-speed wrapping machines repetitively producing the same size of package. Now almost any overwrapping and sealing machine can be modified to handle tear tape and the tapes can be applied across the web of film rather than just along the length of the wrapper, as before. In addition, prefabricated cellophane bags are now available with built-in tear tapes.

Now the science that inspired the tear-tape development is being put to work to solve the even tougher opening problems of newer and tougher films—with every prospect of success.

First patent *for a cellophane tear tape covered the Wrigley chewing-gum invention in 1932.*



Broad application *of tear tapes followed The Dobeckmun Co.'s 1938 patent of laminated cellophane "Zip-Tape" in a wide choice of colors. Ross Betts (left) led development of precision slitting. Karl E. Prindle (right) co-inventor of moistureproof cellophane, perfected color laminating.*

CRISIS: the new f

Now that the new Food Additives Law is in effect, what is the future of long-established packaging materials?

What about the fate of polymer films, plasticizers and stabilizers, adhesives and color pigments?

Who qualifies as a technical expert—in the eyes of the Food & Drug Administration? How much attention will be paid to the opinions of recognized packaging experts in evaluating the safety of additives in food packaging materials?

These and other equally vital questions are arising among food packagers as they display increasing concern over the controversial new Food Additives Amendment to the Food, Drug and Cosmetic Act.

Is polyethylene safe *for use on fatty foods? F&DA officials say they need proof that migratory lower-weight polymers in this plastic do not affect humans, which may necessitate lengthy animal-feeding tests to clear this important packaging material. During this exhaustive test, a laboratory researcher draws a blood sample from a test rat to determine the metabolic fate of a migratory chemical.*

PHOTO: DU PONT

Effective March 5, the new law gives packagers and suppliers only until March 6, 1961, to get Government approval for all their present packaging materials.

As a result of previous articles in MODERN PACKAGING on this amendment and its implications for packagers,* the editors have been asked many specific questions on significant points of the law and its enforcement and on the status of some widely used packaging materials. For this third article in the series, 25 of these questions with broad interest to all food packagers have been posed to John L. Harvey, F&DA's Deputy Commissioner.

His recorded answers reveal for the first time how much authority the F&DA has in both judging the qualifications of technical experts and deciding whether or not a chemical is really a food additive. Should F&DA take a narrow viewpoint on these two subjects, few packagers would be qualified to express an opinion on the safety of their packages that would carry any weight with this regulatory agency and F&DA could so broaden the definition of a food additive that needed clearances on long-established materials could be hopelessly entangled in the red tape of official petitions. If, however, F&DA will listen to considered opinions of recognized packaging experts—as opposed to authorities in toxicology and pharmacology only—clearances on important packaging materials could conceivably proceed at a rapid rate.

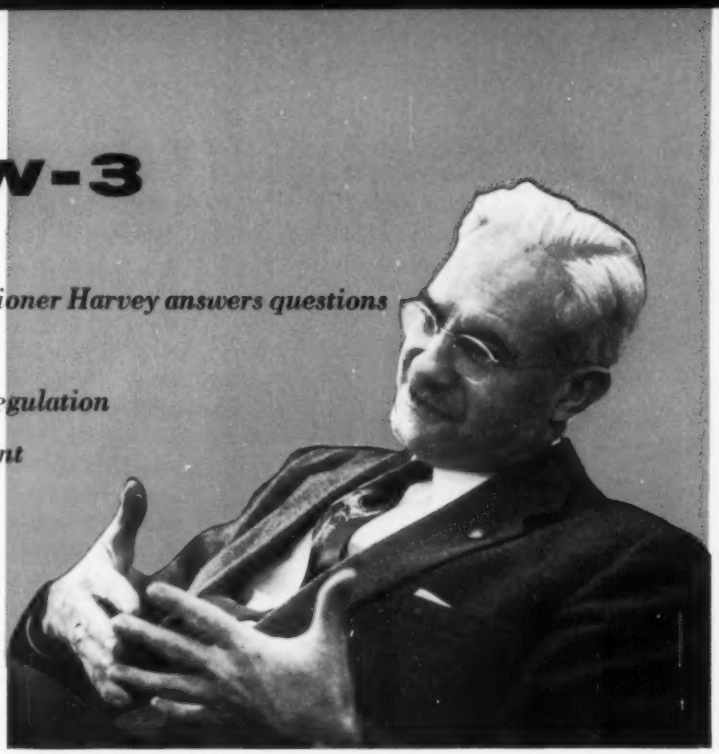
The situation looks serious for applications of polyethylene to fatty foods. Because F&DA will not necessarily accept data submitted to the U.S. Dept. of Agriculture under the Meat Inspection Act and is also wary of the small percentage of low-weight polymers in this plastic, it is apparent that extensive testing may be necessary before polyethylene can be used in such applications.

An interesting point in the matter of films and laminations used in boil-in-the-bag containers is that these materials must be tested at the elevated temperatures of usage. F&DA prefers even more extreme conditions, but since it is not feasible to perform extraction tests above the boiling point of water, the agency suggests using longer periods of extraction. These extreme conditions may have to be applied to such other packages as paper and film containers for baked goods that are heated for serving in home ovens. Conversely, no indication has

* See "Crisis: The New Food Law," MODERN PACKAGING, May, 1959, p. 75, and June, 1959, p. 106; "Extractability Testing," this issue, p. 113.

food law-3

F&DA's Deputy Commissioner Harvey answers questions vital to packagers on administration of the regulation and the future of important packaging materials



Authoritative answers *to questions in this article come from F&DA's Deputy Commissioner Harvey, who controls enforcement of the new Food Additives Amendment that affects all food packagers. His comments, reported here, reveal the power possessed by this Federal agency to decide the safety of a packaging material.*

been given by F&DA whether frozen-food packagers can take advantage of lower temperatures when testing their packaging.

However, several points are clear in the answers to other questions. If a packager wants to be safe, he must perform tests if there is any reason to suspect migration in his package. And while F&DA is working on some tests that may eventually shorten animal-feeding experiments, they will not be ready in time to help packagers through the present test period. Furthermore, severe as they are, F&DA is quite satisfied with the chemical tests it now recommends.

F&DA's general opinions of plasticizers, stabilizers, inks, adhesives and other chemicals used in packages or in the preparation of packaging materials seem to indicate that an extensive amount of test work will be necessary to clear these compounds.

Following are the questions and Commissioner Harvey's recorded answers:

Q: What is the distinction between a food additive and a food ingredient?

A: A food additive is a substance that is specifically defined in the Amendment—in short, it is any substance that directly or indirectly gets into food and is not generally regarded as safe. A food ingredient is any component of a food.

Q: How many materials have been cleared by prior sanctions?

A: There are several hundred materials that have been cleared by prior sanction. Most clearances are based on facts that show there is no migration.

Q: Have any packaging materials been cleared for use on foods since the law went into effect?

A: We have told people that based on data they furnished us regarding a product we did not believe it to be subject to the Food Additives Amendment. There have been no formal petitions approved on packaging materials.

Q: What does F&DA intend to do after March, 1960, or March, 1961 (the initial and extended time limits for completion of clearances), about long-standing packaging practices or packaging materials that are recognized as safe in the packaging field—but which have not been officially cleared by F&DA?

A: Recognition in the packaging field is not the criterion that is expressed in the law. To be exempt, the substances must be generally recognized as safe by experts who are qualified by training and experience to evaluate the safety of food additives. If they are not exempt, they would then be illegal unless they had a formal clearance.

Q: Are we correct in understanding that, under

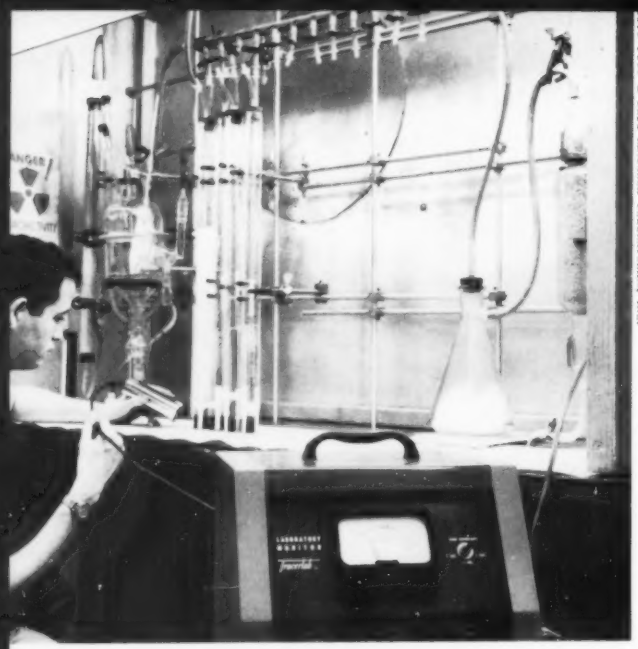


PHOTO FOOD & DRUG RESEARCH LABORATORIES, INC.

Packagers cannot avoid *the expense of chemical tests for migrant compounds if they want to play safe, say Food & Drug officials. These tests range from simple chemical extractions to complex analyses involving use of radio-active tracers (shown here) that cost many thousands of dollars.*

the Amendment, the Food & Drug Administration is given jurisdiction to determine whether a food additive is safe and that the question of determining whether a substance is a food additive is to be determined by experts as described in Section 201(s)?

A: The Food & Drug Administration has jurisdiction to determine whether a food additive is safe. If there is a dispute over whether or not a substance is a food additive, this matter will be finally determined in a court of law, based upon the testimony of experts.

Q: In defining a food additive, Section 201(s) excludes substances used in food prior to Jan. 1, 1958, which have been adequately shown to be safe through either scientific procedures or experience based on common use in food. Must the qualifications for experts making such an evaluation through experience based on common use in food be the same as the qualifications for experts who make such determination through scientific procedures?

A: Experts making evaluations based on either common usage or laboratory and scientific procedures must generally have the same qualifications —sufficient training and experience in biology, medicine, pharmacology, physiology, toxicology, veterinary medicine or other appropriate science to recognize and evaluate the behavior and effects of chemical substances in the diet of man and animals.

Q: Where experts, as defined in the regulation, have determined through scientific procedures that a packaging material is safe, must their opinion be confirmed by F&DA?

A: They may decide for themselves whether they wish to secure an opinion from the F&DA as to the status of a substance under the Amendment. We think it important to bear in mind that in order to qualify for an exemption, the recognition of safety of a substance must be general among experts and not limited to a few who are privileged to review facts not generally available to all. Where there is no general recognition of safety, then the matter must be presented by way of a petition to the F&DA.

Q: How can packagers protect themselves from unintentional violations of the Food Additives Law without going to the trouble and expense of chemical tests for migratory compounds?

A: If there is any reason to believe that substances which are unsafe may become a component of food from packages, the facts must be resolved—and they cannot be resolved without testing. [Editor's note: However, many packagers are demanding guarantees of safety from their packaging suppliers.]

Q: Is F&DA satisfied with its current recommended tests for extraction of packaging materials, or is work being done to modify or discard these tests in favor of less rigorous extraction procedures?

A: We have no plans to change present methods.

Q: Is F&DA working on any methods to short cut the long-term animal-feeding tests by using faster biochemical techniques?

A: Yes, we are studying biochemical techniques for determining the safety of food additives and are doing some research work in our own laboratories. While we do not have any immediate prospects that these will shorten the present long-term studies, we certainly hope we will.

Q: Would the presence of a chemical in a packaging material that is normally found in a food be acceptable to F&DA?

A: Only if it is generally recognized as safe. As a matter of fact, all components of food are chemicals.

Q: Will F&DA accept data submitted to the Department of Agriculture for clearance of materials under the Meat Inspection Act as satisfactory evidence of the safety of a packaging material for other food-packaging applications?

A: While the F&DA will accept any data on a petition for clearance, as far as it is applicable, we cannot say that data which answers a question with respect to migration in meat would necessarily hold for other food products or even for some other fatty-food products.

Q: Does F&DA plan to do any studies on broad packaging problems—such as determination of decomposition products in heat-sealed waxed papers and films?

A: We have no definite program of study on broad packaging problems. The law contemplates that data necessary for clearance will be supplied by those who seek clearance. We will expect to make only such studies as are necessary for enforcement purposes. These studies ordinarily would show only that an uncleared food additive has been used in a food.

Q: What is the status of packaging materials now used for boil-in-the-bag containers and what special testing methods, if any, must be used to determine migration from these materials?

A: Boil-in-the-bag containers would be in the same category as any other film. And film testing was covered rather thoroughly in a paper by Mr. L. L. Ramsey of the Food & Drug Administration at the Packaging Institute meeting in New York on March 3, 1959.

Q: What is F&DA's general thinking on the plasticizers and stabilizers now used in plastic packaging materials?

A: Plasticizers and stabilizers generally migrate. Therefore, tests must be performed to find out what migrates and how much.

Q: What is F&DA's general thinking on polymer films for food packaging?

A: I think that the answer is the same as that for the preceding question. There is a likelihood of migration, so again it is a question of what and how much.

Q: Has polypropylene been cleared for use on food products?

A: No. We need to see adequate extraction data before this material can be cleared.

Q: Why has the agency withheld approval for use of polyethylene on fatty foods?

A: The withholding of approval on polyethylene for fatty foods arises from the fact that lower-molecular-weight polymers in polyethylene tend to migrate to fat. We can clear this material only when its safety is definitely established.

Q: What is F&DA's position on paper and plastics packaging materials that may be subjected to oven temperatures (as in heating bakery products) with or without the approval of the packager?

A: I take it that this relates to responsibility of the packager and I can only answer by saying that he is responsible for the in- [*Continued on page 167*]

PHOTO DOW CHEMICAL

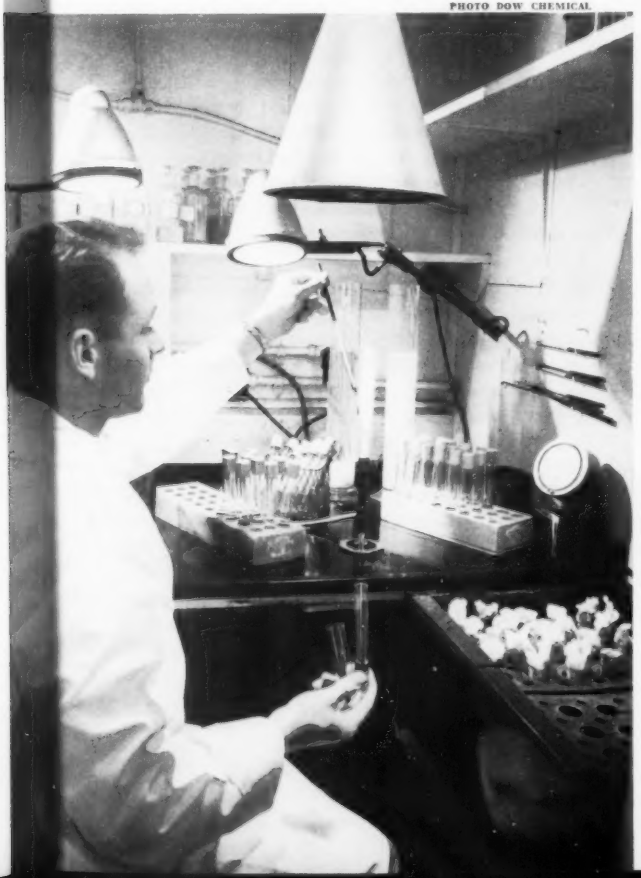


PHOTO DU PONT

Are short cuts available *in animal-feeding tests? F&DA researchers are working on biochemical tests (above) which they hope will be faster. And some industry experts believe that microbiological tests (left) may also speed determination of the toxicity of packaging chemicals and be just as accurate as animal tests. But neither technique is expected to be available soon.*

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PACKAGING PAGEANT

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1 Cast polyethylene film bags for Comette Hosiery Mills' Comette and Real-Shear brands of ladies' hose are reported to provide superior packaging at reduced cost. The casting technique imparts high clarity, yet the film is tough and moisture resistant. Bags, Texas Plastics, Elsa, Tex., using U. S. Industrial Chemicals' Petrothene resin.

2 Product visibility, brand identity and rigidity for stacking are combined in this new package for Orange Band luncheon meats by Herman Sausage Co. Product is initially vacuum packed in a pouch. Flanges of the pouch are then heat sealed to a printed and coated card. "Advac" package, American Can's Marathon Div., Menasha, Wis.

3 Formfit Co.'s new Fresh 'n Clean liquid detergent comes in a plastic-coated glass aerosol with metered dispensing valve. Product is nitrogen propelled. Upon fingertip pressure at the pushbutton, the metal ball (see arrow in photo above) rises in the dip tube and stops product flow when the proper "dosage" has been dispensed. Bottle, T. C. Wheaton Co., Millville, N. J. Valve, Precision Valve, Yonkers, N. Y. Contract packager, G. Barr & Co., Chicago.

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4 Gracefully tapered milk-glass goblets with a short stem and bas-relief grape design add merchandising appeal to Procter & Gamble's Big Top peanut butter. Lithographed metal pry-off closure and small spot label complete the package. Design, Donald Deskey Associates, New York. Glass, Continental Can's Hazel-Atlas Glass Div., Wheeling, W. Va.; Federal Paperboard's Federal Glass Div., Columbus; Thatcher Glass, New York. Lid, White Cap, Chicago. Labels, McDonald Printing, Cincinnati.

5 Transparent cellulose acetate butyrate clips "staple" Hazel Bishop's No-Smear mascara tube and eye pencil to display cards. Extruded in long sections, the clips are made to fit the contour of the package, then cut to length. They snap through a die-cut hole in the card and the package is pushed through the opening. They offer full package visibility, ease of assembly and low cost (1.8 cent each). "Invisible staples," Anchor Plastics, Long Island City, N. Y.

6 A simplified method of multi-unit packaging, used by Saltesea Packing Co. in a deal promotion of two cans of Rhode Island Style Clam Chowder, is this die-cut and scored paperboard band that simply locks closed without glue or staples. Cans are quickly banded by hand, using only a jig. Design, R. E. Van Rosen, New York. "Twin-Band," Rossotti Lithograph, North Bergen, N.J.

7 High-impact 0.05-in. polystyrene container and snap-on lid for Leeds Chemical Co.'s new Vi-C plant food is re-usable as a flower pot and saucer, or as a food container. Product is packed in a polyethylene bag so that the containers are usable after simply peeling off the pressure-sensitive label. Container and lid, Peoria Plastic Co., Peoria, Ill. Bags, United Board & Carton's Tower Div., New York. Label, Paramount Paper Products, Omaha.

8 Glamour appeal at low cost is achieved for Miahati, Inc., cologne with this decorative styrene case over a glass aerosol container. Miahati (which molds the case) reports an 80% saving in materials cost compared with former plastics. Clear, bright colors, which are given a marbleized effect, are reported not to fade. Bakelite C11 styrene, Union Carbide Plastics, New York.

9 A polyethylene "squirt spout" is part of the metal screw cap of this oblong lithographed metal can for W. H. Barber Chemical Co.'s new "Help," a fluid for starting charcoal fires and for home cleaning uses. The spout is used by pulling it out from the cap and inverting it through the cap opening. Base of the spout forms a gasket to prevent leakage at the nozzle. Can, American Can Co., New York. Spout, A. J. Collins Mfg. Co., Chicago.

10 Twelve carded bubble packs of Taperettes, Richard Hudnut's new product for shaping hair, are packed in a shipping display container with a single-faced corrugated U-board fitted along its inner side and bottom walls. Spaces created by the corrugated serve to hold the card packs firmly in position. Card pack (using Celanese acetate) and display, New Haven Board & Carton, New Haven, Conn.

COST CUTTING ON

New economy in packaging-line operation plus packages with increased merchandising impact and added consumer convenience are found in the latest moves by the Joseph Dixon Crucible Co., Jersey City, to keep its wooden lead pencils highly competitive in the age of the ball-point pen. The new improvements in package construction and mechanical efficiency follow by 2½ years a marked advance in surface design for Dixon packaging that demonstrated a strikingly original approach to the marketing of wooden pencils when it was introduced.*

Results of the latest packaging changes include:

1. An economical, new, single-piece foldover carton for top-brand Ticonderoga pencils that cuts handling time by 50% in stationery-store operations.

2. A narrow shelf package for supermarkets that saves 50% in "frontage" space on the shelf, yet provides an eye-catching display for Dixon's Topflight and Parade brands of pencils.

3. A whole new line of hang-card packages for pencils and erasers that boost supermarket displays and give greater protection to the rubber products.

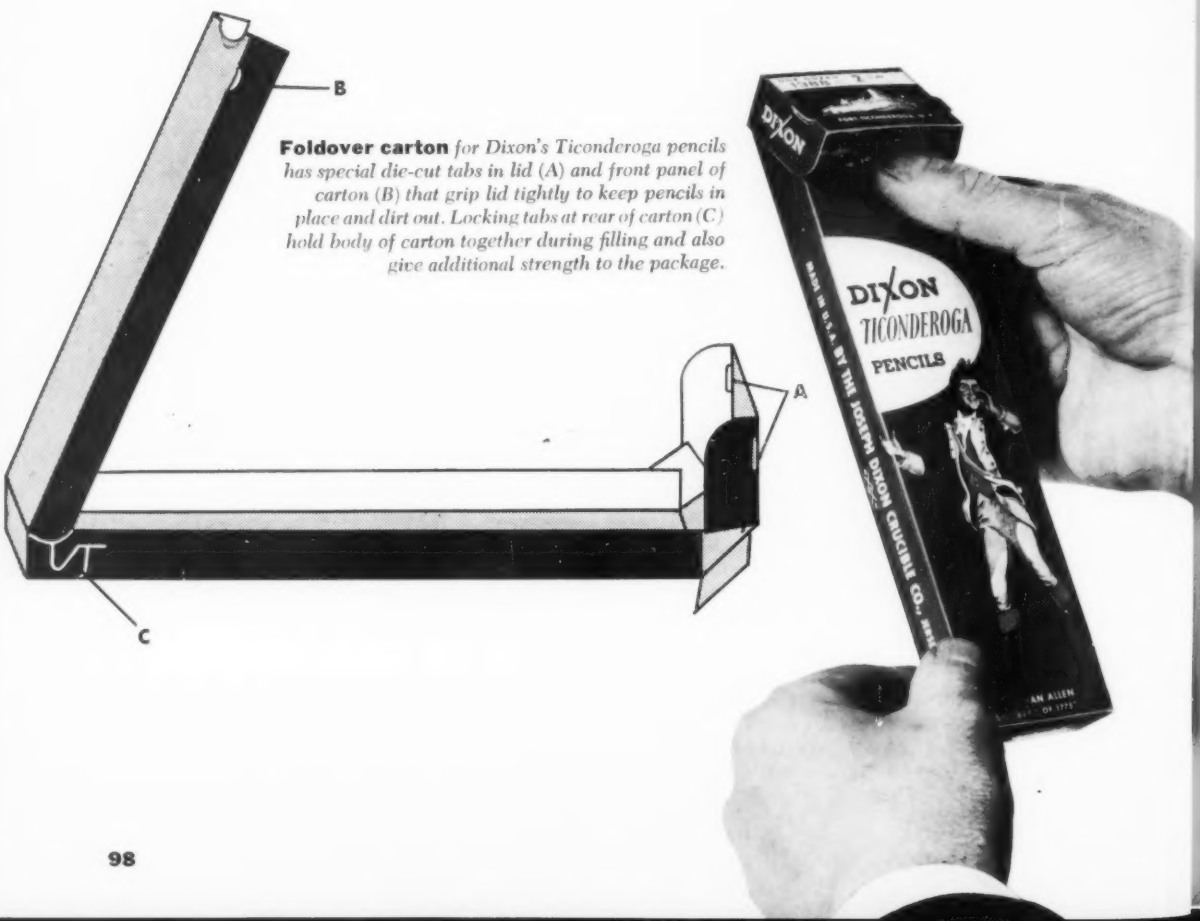
Most important achievement from the standpoint of package construction and machinery is the folding-box development, which reduces the amount of board in the package by 33%, cuts packaging cost by 20%, replaces four packaging machines with one and replaces five pre-printed cartons with a single container that is imprinted with product data right on the packaging machine.

The original package for the stationery-store pencils by the dozen was a two-piece telescoping box, the traditional package in the pencil business. It was set up on one pair of machines, then filled on two separate units.

The new carton—combining both glue-flap and locking-tap construction—is set up and loaded on a new and completely integrated packaging machine that forms the carton from a blank and wraps it around a dozen pencils in a manner very similar to modern multipackaging operations.

Chief feature of the new carton is a simple but

*See "Pencil Points," Modern Packaging, Oct., 1956, p. 132.

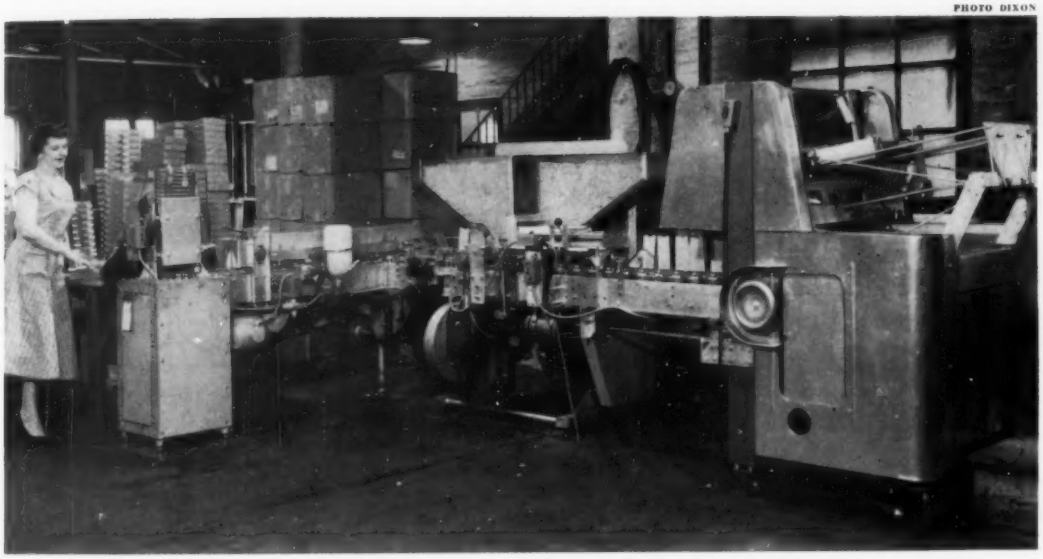


Foldover carton *for Dixon's Ticonderoga pencils has special die-cut tabs in lid (A) and front panel of carton (B) that grip lid tightly to keep pencils in place and dirt out. Locking tabs at rear of carton (C) hold body of carton together during filling and also give additional strength to the package.*

A PENCIL LINE

A new principle in cartoning, using a single-capacity machine that loads pencils by the dozen in folding blanks, enables Ticonderoga to save 20% while sharpening its merchandising strategy

PHOTO DIXON



Integrated packager *forms each carton blank into shallow tray (right), which is carried to filler (center). Here, 12 pencils are added in two stages with a promotional leaflet sandwiched in between. Top of the carton is imprinted and closed, then carton is finally glued in spring-loaded vertical compression unit at left.*

ingenious feature for holding the flip-top lid in a closed position. This device consists of two ¼-in. ears, die cut from the front panel of the carton, that engage two slits in the front of the flip-top cover, formed by similar die-cut ears. While the cover can be flipped open in an instant with a flick of a thumb, it closes securely to hold the remaining pencils in place and prevent dust from entering the package.

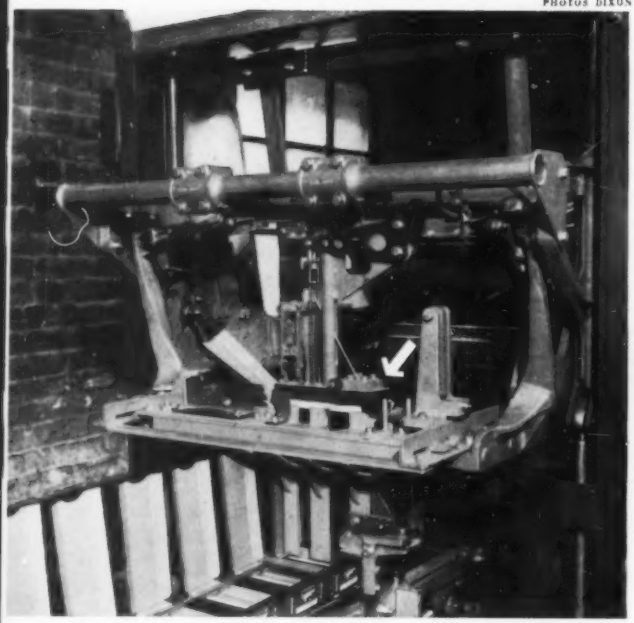
Another unusual feature of this carton is the combination of locking tabs and glue flaps used to secure the body and lid of the package. Since the package is formed in a horizontal position, with the front panel of the carton bent back out of the way during loading, the locking tabs hold the body of the container together in the form of a tray while the pencils are inserted. Full outer flaps on the front panel of the carton are then glued over the locking tabs to complete the carton and create a package with great structural strength.

In action, carton blanks are loaded into an angled, spring-loaded hopper on the new cartoning machine. Two rubber rollers, driven by ratchet-and-pawl mechanisms, push the blanks forward into loading position, where they are picked off by vacuum cups mounted on an eccentric arm.

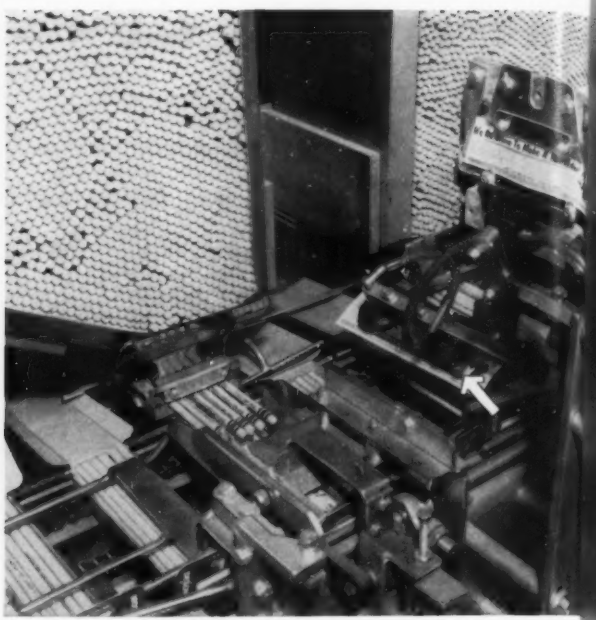
A vertical plunger pushes the scored blank down through stationary forming bars and deposits it in a pocket on a chain conveyor. A knife, actuated by an electric switch, then tucks the single pair of locking tabs into place at the rear of the carton. Front panel of the carton is plowed back to a horizontal position, leaving the tray part of the carton ready for loading it with the product.

Pencils are loaded into two tapered hoppers that are located on a bar above a twin-pocket loading mechanism. The hoppers, connected to a rocker arm, slide back and forth on the bar to prevent pencils from bridging in the loader. During packaging, six

PHOTOS DIXON



Carton former *employs vacuum cups mounted on a swinging arm to position blanks. Reciprocating plunger (arrow) drives blank down through stationary forming bars, deposits carton in bucketed conveyor (lower center). Tabs at rear of carton are locked before loading pencils.*



Pencil loader *is divided into two sections. After first six pencils are deposited in the carton (right), a promotional leaflet is added by a swinging arm equipped with vacuum cups (arrow). Last six pencils are then pushed from a second compartmented loader (left).*

pencils drop into an equal number of grooves in the first loader and are pushed forward into the carton by a reciprocating arm equipped with six fingers.

After the first six pencils are put into the package, a promotional leaflet is added by a vacuum pick-up arm. The leaflets are held in a magazine by a spring-loaded trolley, which has two arms that engage the leaflets and push them into feed position.

Next, the carton moves to the second loader, where the final six pencils are added.

As the carton proceeds, the front panel is plowed forward over the pencils. At the same time, information on the type of pencil in the carton is imprinted on the top and front of the flip-top lid by a rotary rubber-roll imprinter. The lid is then plowed down over the front panel. (The Ticonderoga pencils are made in five types—Nos. 1, 2, 2.5, 3 and 4—each of which is packaged in the same foldover carton with merely a change of identification on the rubber-roll imprinter.)

After switching direction of travel by 90 deg., the carton is glued by a conventional wheel applicator that puts a narrow strip of a standard, cold latex adhesive on the side and top flaps of the carton.

The cartons then enter a vertical compression unit, where they are pushed upward by a ram into a spring-loaded section. This machine has a special cam that spreads the compression plates before the packages are pushed upward, to prevent scuffing the cartons. Finished packages are ejected from the top of the unit and slide down a chute to a loading table, where they are packaged in colorful set-up boxes, each holding six individual foldover boxes.

A single variable-speed motor handles all of the important mechanical action in the packaging machine. Power is transmitted through a single jack shaft; chain drives and gear boxes located along this shaft operate the individual mechanical components. Separate small motors run the glue pump and rolls, the two vacuum pumps for the carton and promotional-leaflet pickers.

In distribution warehouses quick recognition for the Ticonderoga pencils is provided by packaging the half-gross boxes in a white shipper printed in red, yellow and black. This merchandising extra is claimed by Dixon as a first in the pencil field.

Supermarket packages

While the packaging of quality pencils for the stationery trade is a striking example of cost savings and mechanization, the new packaging of economy pencils and erasers for supermarkets is no less an example of package design and planning.

For this self-service market, the pencils have been

put up in two types of packs—one for shelf and one for pegboard display. The conventional method of merchandising pencils on the shelf is to cellophane wrap them in groups of three, five, six, eight, 10 or 12, and display them—two or three packages abreast—in a master shelf carton with a back board carrying the sales copy.

Realizing that supermarket shelf space is at a premium, Dixon changed its shelf packs to a single row of overwrapped packages that utilizes the full depth of the shelf, but takes minimum width. The back board has been eliminated and sales copy is placed on both the lower front of the packages and the base of the master shelf carton, which is a set-up container printed in a colorful blue and white design. Since the top of this master carton is used only to protect the pencil packages during shipment and is discarded for display, it is an inexpensive folding cover made of unbleached kraft. Each shelf display contains 24 packages of pencils that are held in an upright position, even after some packages are sold, by small strips of single-faced corrugated board inserted in each side of the display box, flute sides in.

In the individual packages for these display units, pencils are inserted in a paperboard folder that gives full support to the pencils from behind and is cut short to display them in front. The entire package is overwrapped with No. 450 MST cellophane, which protects rubber erasers and metal ferules from deterioration and corrosion.

A similar package has also been designed for pegboard display of six, eight, 10 and 12 pencils. Here, the sides of the paperboard folder are extended to form a U-board. A saddle label with a punched hole is stapled at the top of the package for hanging.

Single pencils and typewriter erasers are also now stapled on hang cards to discourage pilferage. This represents a considerable change from single-unit counter displays for stationery stores, where the individual pencils are merely slipped into a die-cut paperboard folder.

The new package for erasers has also solved a long-standing problem of product protection to increase shelf life of its rubber products. Dixon is now enclosing such products as art gum, ink and pencil erasers, slip-on pencil tips and combination erasers in pouches made from polymer-coated cellophane—which provides a superior barrier to moisture and oxygen transmission. Pouches are formed in pairs on a standard packaging [*Continued on page 167*]

SUPPLIES AND SERVICES: Cartons and folders by Federal Paper Board Co., Bogota, N.J. Cartoning machine by Kliklok Corp., 405 Lexington Ave., New York 17. Pouch packer by Conapac Corp.'s Roto Wrap Div., 120 E. 13 St., New York 3. Polymer-coated cellophane by Du Pont.

Supermarket shelf pack *has inexpensive, unbleached paperboard cover that is discarded on display to show colorful set-up box and overwrapped pencils. The narrow package takes a minimum of space on shelf.*

New hang-board packages *give bright display to economy pencils and erasers. Overwrapped U-board package (upper left) is similar to individual shelf packages, but has a stapled saddle label. Single items are now stapled to discourage pilferage (lower left). Erasers and labels are put up in dual-compartment, heat-sealed, polymer-coated cellophane pouches (right).*

Signal-flag shipping cases

GF's Jell-O Division drops promotional design in favor of strictly functional markings on corrugated containers, putting handling facility ahead of brand promotion

In the face of the current trend toward colorful "billboard" shipping cases, the Jell-O Division of General Foods has swung to a starkly simple "geometric code system" which uses the standard markings as recommended by grocery distributors and adds distinctive symbols and colors to help handlers distinguish at a glance the 42 products sold under the Jell-O name.

The new approach is detailed in a company brochure just released which outlines the program as it applies to some 185 cases used for Jell-O Division products. The Institutional Products Division uses the same approach for its Jell-O Gelatin line of products. The Maxwell House, Post Cereals, Perkins Products and SOS Divisions have adopted the same system (minus symbols). The stated objectives are:

- To make it easier to distinguish the company's various products by brand, flavor and size.
- To eliminate error in moving cases from warehouses to retail outlets.

The redesigned Jell-O corrugated containers carry nothing beyond a straightforward presentation of essential data. There are no extraneous promotional frills or decorative color elements. One-color printing—a different color for each product group—is entirely functional: red for Jell-O gelatin, green for Jell-O instant puddings, blue for other Jell-O puddings and pie fillings.

All lettering is in large type. Case contents and code numbers are located in a standard manner—code in the upper right-hand corner and case contents in the upper left-hand corner of each panel. The special feature that gives the system its name is the use of geometric code symbols, like signal flags, for flavor designation. And last but not least, GF says, the information is duplicated on all six sides of each case—a practice which the food trade heartily recommends.

The new project was put into effect after careful surveys in the field from which GF concluded that there was dubious value in promotional copy and illustrations on shipping containers seen mainly by warehousemen and stockroom personnel, rarely by the consumer. Far greater service could be offered to the trade, it was reasoned, by providing cases designed to speed operations in warehouses and back rooms, cut costly overhead and reduce out-of-stock situation due to mistaken case identity.

The Jell-O redesigns are part of an over-all GF corporate program initiated several years ago to help solve some of the operating problems in food distribution and retailing. It was partly inspired in 1955 when GF's Maxwell House shipping case was pointed out as an outstanding example meeting recommendations for improved case marking promoted jointly by the National American Wholesale

Contrasting *new (left) with old case, which was printed in two colors (red and blue) and sacrificed quick stock-room identity for strong play on Jell-O name. The elimination of one color run means appreciable cost saving.*

Signalling contents *of this typical case are the hour-glass symbol at right, which means "strawberry," and the red color, which means "gelatin." Other markings follow food-distributors' recommendations: contents (48 3-oz. packages) in upper left and inventory code number (200-01) in upper right. The same information appears on all six sides of the shipping containers.*

Grocers Assn., Grocery Mfrs. of America, National Assn. of Food Chains and Supermarket Institute.*

The GF system of case marking is primarily "designed to provide warehousemen with what is virtually a sorting tool," says R. L. Touart, packaging engineer in the Jell-O Division.

It is believed that the procedure may suggest similar systems to other manufacturers who have a multi-flavor and multi-variety problem under a single brand name. The geometric-symbol idea came about as a development of an original plan to use one distinguishing color on the cases for each flavor and variety. The planners soon found out that they ran out of distinctive colors for a line as extensive as 12 different Jell-O Gelatin products. The geometric-symbol system, with a different color of printing for each of the three main product groups, is believed to have solved this problem. One stray symbol stands out like a sore thumb, it is said, in a mass of stacked inventory.

Effectiveness of the plan, GF says, is attested by the many favorable comments already received from members of the food trade.

SUPPLIES AND SERVICES: Corrugated cases by Continental Can's Gair Fibre Drum & Corrugated Box Div., 530 Fifth Ave., New York 36; Fibreboard Paper Products, 475 Brannan St., San Francisco 19; International Paper, 220 E. 42 St., New York 17.

*See "Whose Convenience?" MODERN PACKAGING, Nov., 1955, p. 93.

How code system identifies 12 Jell-O Gelatins

FLAVOR	SIZE	CODE NUMBER	SYMBOL
STRAWBERRY	48/3 oz.	200 01	⧗
RASPBERRY	"	200 02	●
CHERRY	"	200 03	⬮
ORANGE	"	200 04	■
LEMON	"	200 05	✚
LIME	"	200 06	▲
APPLE	"	200 07	▟
BLACK CHERRY	"	200 08	✖
BLACK RASPBERRY	"	200 09	★
GRAPE	"	200 10	◤
RED ASSORTED	"	200 26	▼
CITRUS ASSORTED	"	200 27	◆

Maximum display *for product is afforded by thermoformed polystyrene tray heat sealed to lighter-weight polystyrene lid topped by multicolored foil label. Package is 8¼ in. long.*

Popcorn in polystyrene

7.5-mil lid is mechanically locked and heat sealed to 10-mil thermoformed tray to display caramel corn in a rigid, highly protective container that suggests broad food-packaging potential

Here is a food package that combines almost complete product visibility with reportedly adequate protection from moisture to preserve the crispness of the caramel corn it contains. The package consists of rigid biaxially oriented polystyrene tray and cover. Employing a new semi-automatic machine, the lid is mechanically locked and heat sealed with a serrated edge for maximum resistance to water-vapor transmission. Only a small thermoplastic foil label obscures a full view of the contents. The container should have broad appeal to packagers of many other food products requiring similar protection and visibility.

When the packager, Veri-Fine Foods, Chicago, decided to market buttered caramel corn under its Very-Fine label (until last summer it had made the product only for private brands), it wanted a distinctive container which would stand out from those of its retail competitors. Since caramel corn is an impulse item, seldom on the housewife's shopping list, the package had to catch the eye and sell itself quickly. Veri-Fine also wanted to capitalize on the corn's built-in appetite appeal.

A transparent plastic package was obviously in order, but several problems had to be overcome. Caramel corn can tolerate very little moisture because it loses crispness quickly. Snap-on lids wouldn't give a tight enough seal for minimum water-vapor transmission.

After testing various plastic materials for several months, the company has adopted a 10-mil thermoformed tray and a 7.5-mil lid, both of biaxially oriented polystyrene sheet. Package size is 8¼ in. long by 6 in. wide by 1¾ in. high. Oriented polystyrene packages are said to withstand very low temperatures. Polystyrene's WVT rate reportedly is sufficient to protect this product during fall, winter and spring but may require heavier gauge or coatings during the hot, humid summer months.

Veri-Fine buys ready-made thermoformed trays and lids; its production operations are filling, heat sealing and hand labeling. The company uses two semi-automatic heat sealers which give a firm bond and an attractive, clean edge on all four sides.

Because of oriented polystyrene's shrinkage, it is necessary to combine a mechanical lock and heat

for an effective seal. The serrated edge permits this combination. Both package and lid are fed by hand. An air-operated unit presses the cover against the tray during sealing. The unit is activated by two buttons positioned so that the operator's hands are safely removed from the die area during sealing.

These semi-automatic sealers are on a 3½-sec. cycle; each turns out 12 to 15 units per minute. Veri-Fine soon will switch over to an automatic sealing unit which will be able to handle 40 units per minute.

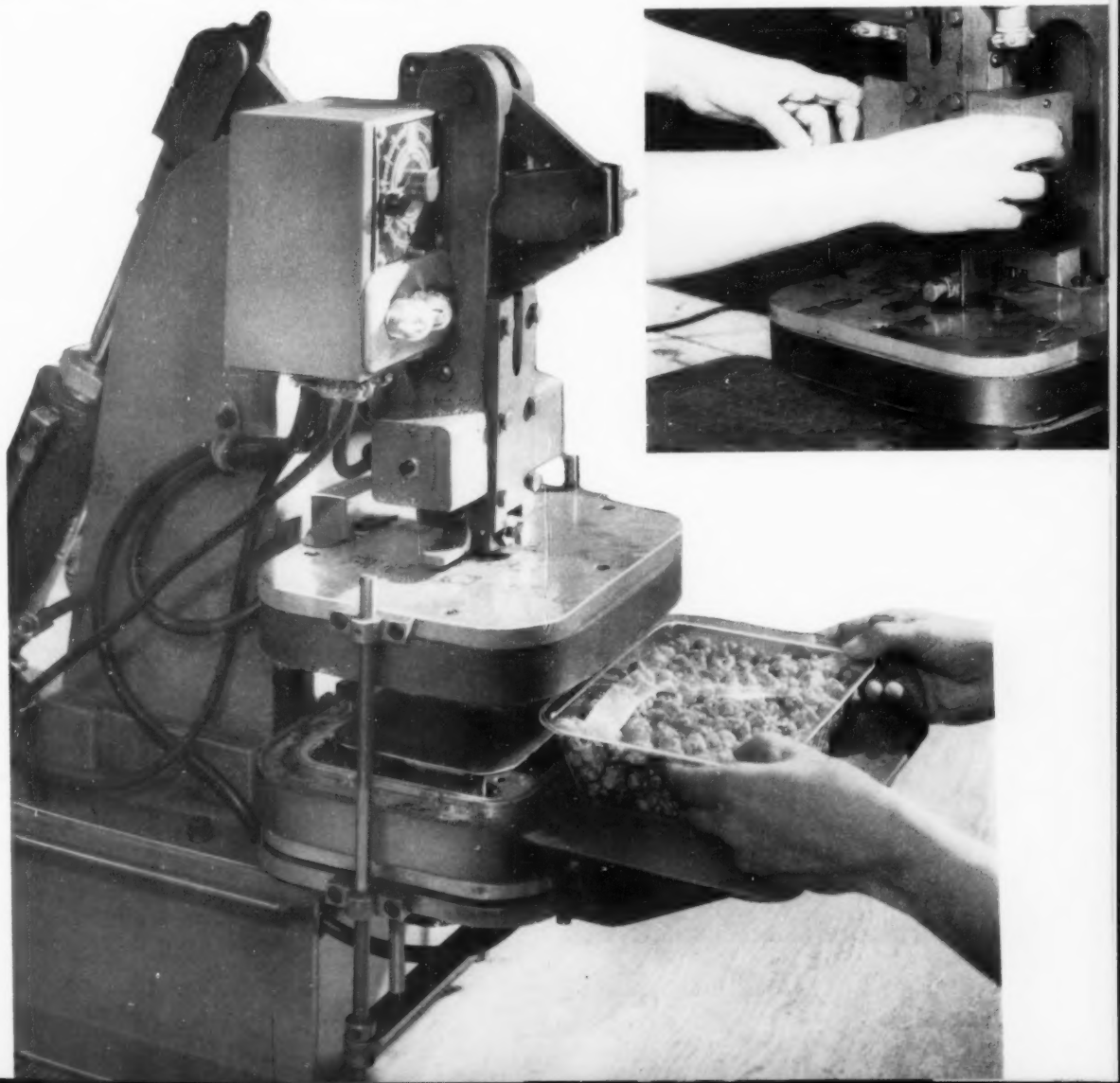
Cost of the complete polystyrene unit is about 4½ cents. Foil labels, supplied in seven colors for a gay party effect, add three-fifths of a cent to the cost of each individual package for caramel popcorn.

This package cost is somewhat high for a specialty food item retailing at 29 cents, the company reports. But its sales appeal is believed worth the money.

Shelf life of the package is about 12 weeks. Veri-Fine's distribution now covers the eastern two-thirds of the U. S., but the new package is expected to hold up well for West Coast shipment. A larger party-size unit can be produced if sales opportunities warrant.

SUPPLIES AND SERVICES: Trays and lids thermoformed by Plastic Packaging Corp., Leominster, Mass., using Plax "Polyflex" oriented polystyrene. Semi-automatic heat sealers by Anderson Tool Co., Ludlow, Mass.

Heat sealing *on new semi-automatic equipment involves fitting lid to polystyrene tray (left), inserting the package under flat sealing plate and activating the unit (right) by pressing twin buttons designed to remove both hands from the heat area.*



40% less for beer labels

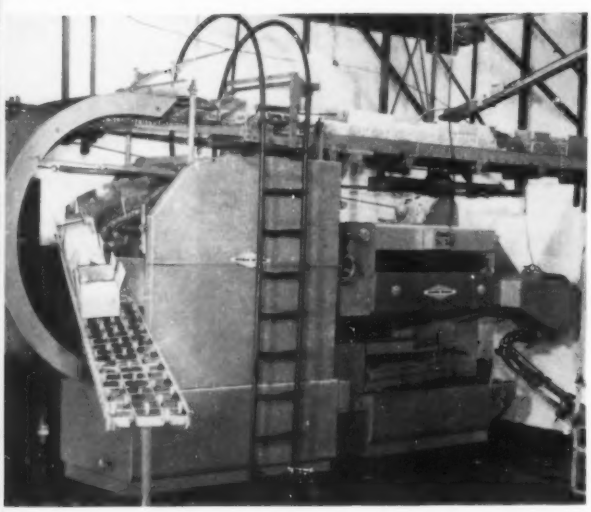
In a complete packaging-redesign program for its line of beer and ale, the G. Krueger Brewing Co. of Newark not only has achieved stronger family identity, but also has pared labeling costs as much as 40%. As testimony to the effectiveness of its low-cost new look in labeling, the packager reports a sharp increase in sales and profits.

The new bottle labels are made of high-grade paper stock, printed in two colors. They replace four-color foil labels. In addition, one-color paper neck labels (interchangeable for ale and beer bottles) have been adopted in place of three-color foil labels. These changes have reduced label costs by 40%. Although less dramatic, further savings of from 2 to 7% have been realized by reducing the number of colors on beer cans and on six-packs for cans and bottles.

Chief design element in the packager's new family look is the strongly legible new Krueger logo, which appears on all cans, bottles and carry cartons. Bold color coding—in green and red—is used to help shoppers identify the cans for ale and beer. *Package design by Francis Blod Design Associates, 1 E. 53 St., New York.*

COST

Speedy automatic can sorter brings a 71% saving



One of the basic reasons behind the steady growth of Fischer-Spiegel, Inc., into a 2,000,000-case-per-year supplier of fruit juices and concentrates is its constant alertness to improved production techniques. The latest expression of this thinking is the installation at the packager's Geneva, O., plant of a high-speed automatic can-sorting and uncasing machine. This unit is credited by the company with increasing production of canned fruit products while reducing over-all packaging costs by 71%.

Paced to the 500-cans-per-minute maximum speed of Fischer-Spiegel's filling and sealing line, the new machine automatically opens cartons and dumps, sorts and feeds cans in upright position to the can track. The entire operation requires the services of only two men: one to load skids of cans on the infeed conveyor, the other to supervise machine performance. This two-man team — which also handles change-over to different can sizes with minimum loss of production—does twice the work of seven that were needed for its former manual operation, the packager reports. *Can sorter-uncaser by Atkron, Inc., Cuyahoga Falls, O.*

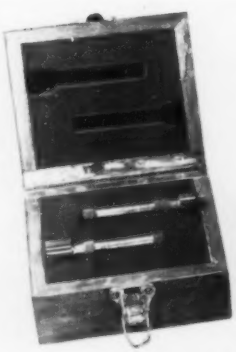
Convenience plus economy

Greater convenience for the consumer and a packaging-cost reduction of as much as 50% are the advantages of a new two-compartment dispenser pouch containing a week's supply of vitamin and mineral tablets. The packager, Nutri-Bio Corp., Beverly Hills, says costs are far below those for one-day-supply packs because seven times as many tablets are dropped per machine cycle and less film is needed overall. From a convenience standpoint, the larger pack need be replaced only once a week instead of every day.

The "Nutri-Pak" dispenser pouch is formed from reverse-printed cellophane, extrusion coated with 2-mil polyethylene to increase its strength and barrier properties. It is made on a special automatic machine—operating at 70 pouches per minute—that forms a full seal down the center of the pouch to create the two compartments. Before forming the top seal and corner tear perforations, the machine drops two charges of tablets into the package—14 vitamins in one compartment, 28 minerals in the other. *Contract packaging by William Steven Co., Los Angeles 65, using polyethylene-coated cellophane by Milprint, Milwaukee.*

CUTTERS

How polyurethane-foam cushioning cuts cost 90%



OLD

NEW

The story of how a manufacturer of delicate precision instruments has slashed its packaging costs by an almost incredible 90% is testimony to the remarkable progress in plastics for packaging. The company involved in this cost-cutting case history is Rocketdyne, a div. of North American Aviation, Canoga Park, Calif.

Rocketdyne formerly packaged its extensive line of instruments in heavy wooden boxes with protective platforms custom made to conform to the shape of each item. The assignment to reduce the cost of these custom boxes was handed to the division's packaging engineers. Out of intensive research was developed a low-cost plastic package called "Kudl-Pak." It is a durable polystyrene-rubber-blend case whose tray and lid are filled with compressible, shock-absorbent polyurethane foam. The conforming "hill-and-valley" surfaces of the two foam blocks hold instruments of any shape securely in place in the closed container. Only five box sizes are required for Rocketdyne's entire line. *"Kudl-Pak" by General Plastics Corp., Santa Monica, Calif., using U. S. Rubber's "Royalite" for the box.*

TO TRAIN A

'Head schoolmaster' *for Squibb's packaging department is assistant director, Herbert G. Merrick, Jr., who checks constantly on progress of package engineering trainees, Ira M. Troy (left) and Raymond W. Schleien (right). Here he gives the two graduate industrial engineers their itinerary and final instructions before they start field trips to suppliers of Squibb's packaging materials and machines.*

How to give young industrial and mechanical engineers—in training as packaging engineers—the necessary specialized knowledge of packaging materials and machinery at a minimum cost in time and money is a problem that plagues many packaging directors. A highly successful program that includes concentrated working sessions at plants of the company's own suppliers is now under way at E. R. Squibb & Sons, Inc., New York.

So far, two young industrial engineers have completed the initial three-month training period and are now at work for the company on packaging problems. Their rigorous initial training program is followed by monthly seminars, featuring both company and outside experts, plus occasional field trips to keep them up to date on developments.

Chief benefits of this compact training course are:

1. Trainees get a broader packaging education than Squibb's director of packaging feels would be possible with just an in-company program.

2. Instruction covers actual packages, materials and machines, explained by the experts who make them—a more practical and graphic teaching technique than classroom slides or motion pictures.

3. Top packaging executives at Squibb gather many new facts on packaging developments and the capabilities of their suppliers from reading reports turned in by the trainees.

The training program—as devised by Squibb's director of packaging, Gordon M. Shimer, and assistant director, Herbert G. Merrick, Jr.—involves three specific phases:

1. A short indoctrination period, during which the trainees work in Squibb plants and receive instructions and obtain details on their itinerary from the company's packaging officials.

2. Field trips to supplier plants, where they get detailed information on construction and operation of packages and packaging machinery.

3. Regular monthly meetings at company head-

PACKAGING ENGINEER

Squibb transforms fledgling industrial engineers into knowledgeable packaging technologists with a three-part program of company indoctrination, supplier plant tours and seminars

quarters, plus additional field trips to check on new developments in the packaging industry.

From the start, trainees are salaried employees of the company, which also pays all traveling expenses incurred on the field trips.

Many months of work went into programming this course. First Squibb officials told suppliers the type of training program they had in mind and solicited their cooperation and suggestions on how the training sessions could be conducted at each company. Current suppliers were selected.

Tentative outlines of supplier training sessions were reviewed and modified to pack the greatest possible benefit in the least time. Planned in great detail, such sessions were frequently laid out on an hourly schedule. Most local plant trips were scheduled for a single day, on the ground that trainees could easily revisit them for further information.

Suppliers are reported to be highly enthusiastic about the program because it gives them an unusual opportunity to present both the advantages of their products and the special problems connected with their manufacture at first hand. Some vendors—notably manufacturers of custom machinery—had to delay participation until they had under construction machines suitable for study. But this problem and that of the availability of competent personnel were easily met by re-arranging the trip schedule.

Because Squibb is a pharmaceutical company with a wide range of packages, materials suppliers dominated the list of cooperating companies. Out of the 15 firms chosen, 10 were suppliers of packages

First step *for the young engineers—both with industrial experience in non-packaging fields—is to find out what materials and machines are used by Squibb for packaging pharmaceuticals. In the company's Brooklyn plant, Vincent J. Guggolz (left), assistant head of the general subdividing and finishing department, explains line speeds.*

Second phase *takes trainees to a wide range of package and machinery suppliers. Here, they are shown taking notes on the construction and operation of a thermoplastic labeler from machinery expert, Arthur Schaeffer of New Jersey Machine Corp.—one of the 15 companies visited by the trainees in three months.*

and materials—tubes, bottles, closures, cartons, corrugated shippers and plastic films. Also selected were five machinery manufacturers that make the cartoners, fillers, cottoners, cappers, unscramblers and labelers in general use at Squibb plants.

Wherever possible, at least two manufacturers of a specific package or machine were picked to give the trainees the benefit of different lines of thinking on a particular packaging subject.

How it works

The first two trainees in the program, Raymond W. Schleien and Ira M. Troy, are both graduate industrial engineers. Each had about one year of engineering experience—though not in packaging—before joining Squibb. During the intensive three-month course, these young engineers ranged far in pursuit of technical knowledge—west to Michigan and as far south as North Carolina. More recently, they have broadened their experience by visiting some contract packagers.

Because of their prior industrial experience, the two men spent only two weeks in two company plants getting background knowledge on Squibb packaging techniques. And because they were being trained as packaging engineers, they went straight to the production lines in these plants, where department supervisors gave them a complete rundown on the specific types of packages and machines used by the company. In addition, the two trainees made notes on lines speeds, number of operators and other pertinent information that would enable them to talk knowledgeably with suppliers about various aspects of Squibb operations.

Before hitting the road, the trainees were given comprehensive instructions on their itinerary and what they were expected to do.

They were told to talk little and listen a lot to absorb everything possible about the suppliers and their products. To avoid the usual practice of entertainment by the suppliers, the trainees were required each night to write detailed reports on the day's activities. Between trips, they were questioned closely by Squibb packaging executives to determine their individual progress and the general efficiency of the program.

The written reports—which finally totaled over 150 typewritten pages for both men—deal mainly with the technical side of the suppliers' products. The trainees were also required to give an evaluation of the vendors' size [*Continued on page 174*]

Putting it on paper. *Trainees spend their evenings on the road writing detailed reports on the day's activities. These evaluations of the supplier's efficiency and output are carefully read by Squibb packaging executives to determine progress of trainees, effectiveness of program.*

Follow-up seminars *at headquarters of the packaging department in Brooklyn keep the whole department alive to current activities in the packaging field. Here, Francis E. Blod and Richard Tupper of Design Associates, Inc., (left and right in center) describe the function of a package designer. Packaging engineers Schleien and Troy (foreground)—now full-fledged members of the department—write interpretive reports on these seminars.*

"Knox bottles score among highest in quality tests," says Purchasing Agent of major eastern brewery

"Each shipment of bottles we receive is quality-rated to measure the consistency of the various suppliers charged with meeting our very rigid specifications," says the purchasing agent of one of the nation's largest and most successful breweries.*

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Extractability testing

An outline of principles and methods that should govern procedures to establish safety of packaging materials under new Food Additives Amendment

Use of the proper laboratory methods for establishing the extractability of chemicals from packaging materials is a key to compliance with the new Food Additives Amendment to the Federal Food, Drug & Cosmetic Act (see "Crisis: The New Food Law," MODERN PACKAGING, May, 1959, p. 75; June, 1959, p. 106, and this issue, p. 92). Here is an authoritative guide to such methods, from the publication, "Food-Packaging Materials: Their Composition and Uses," just issued by the National Academy of Sciences—National Research Council as a report from their Food Protection Committee, Food & Nutrition Board. The chapter "Principles and Methods for the Study of Extractability of Packaging Materials," slightly modified, is reproduced here with permission.

In order to appraise the safety of packaging materials for use in contact with foods, it is necessary (1) to know whether or not any of the container components are leached into the contacted food; (2) to determine the amount of container extractables in the food, and (3) to identify the materials that are extracted. If no material, or a toxicologically insignificant amount, is transferred to the food, obviously no safety problem exists. In this connection it is of interest to refer to the report of the Food Protection Committee, "Insignificant Levels of Chemical Additives in Food," which states the principle that toxic substances may occur in foods in inconsequential amounts.

In view of the wide variety of packaging materials and numerous conditions of use, it is not possible to detail a simple specific procedure for obtaining the data required for the safety appraisal of food containers. It is difficult to do more than set forth the general requisites of extraction procedures and the experimental conditions for determining the extractability of a few types of materials.

Ideally, the extraction phase of the appraisal tests should consist of processing and storing the food or foods in the container for the maximum period and temperature likely to be encountered in practice. As an experimental approach, this is often not practical for several reasons; *viz.*, the impossibility of anticipating all possible foods for which a given packaging material may be used, the inordinately long time required to complete such a test and the interferences encountered in applying analytical procedures to such complex materials as foods. To obviate these difficulties it is acceptable to conduct extraction tests under accelerated conditions employing simple, food-simulating solvent systems.

Procedures designed to evaluate the extractability

Figure 1. *Extraction equipment used for studies.*

of packaging materials by food-simulating solvents must be adapted to the chemical and physical properties of the material being tested and to the intended commercial usage. Any method must be analyzed and evaluated carefully, and modifications must be made to meet specific situations. For example, a paper, a thermoplastic film and a baked thermosetting can enamel would not be treated identically.

Generally, extraction procedures should:

1. Provide an exaggeration of time and/or temperature over commercial conditions of packaging, processing, distribution, storage and use. Time might be exaggerated if the food to be packed has a short shelf life: *e.g.*, fresh strawberries, but it is more common to elevate the temperature for accelerated effects since most foods of concern have a long shelf life. The degree of acceleration cannot be stated *a priori*, but must be determined for the particular type of material under investigation. The possibility of physical or chemical changes not typical of those occurring during processing or storage, but due to temperatures excessively above normal usage, must be considered.

2. Provide a ratio of test surface to solvent volume equal to that of the industrial package, or a ratio that, if exaggerated, will not *per se* be the limiting factor in extractability. In practice, the requirements for analytical sensitivity dictate that the greatest possible surface area be extracted by the smallest volume of solvent, but care must be taken that a state of equilibrium, or saturation, is not reached or closely approximated. If this occurred, the extractability at a normal surface-to-volume ratio would be underestimated. It may be necessary to show that a proportionality exists between area exposed and amount or rate of material extracted.

3. Permit definite identification of materials extracted. The extract must be examined not only for the major components, but also for impurities, raw materials, unreacted ingredients, plasticizers, etc.

4. Permit quantitative estimation of extracted materials. Methods having high analytical sensitivity—for example, in the range of 0.1 ppm—may be required. When such methods are not available, the weight-loss method may sometimes be used, particularly if a material balance between weight loss of the resin or film and recoverable extract can be established. But this method is uncertain at best and definitely inaccurate in cases where film or coating being tested is not completely dissolved and may have absorbed some of the extractant.

5. Give results sufficiently reproducible that a reasonable index of variability can be estimated.

Methods have been designed for estimating extractability of a number of packaging materials: *e.g.*, can enamels and synthetic films. In general they comprise the requisites outlined. No description of a "standard" method is attempted, however, because methods and materials change rapidly in this field and such "standard" is soon obsolete. Instead, there is presented comment on some general considerations of value in formulating a method.

Preparation of sample

At first thought, the ideal sample would appear to be one taken from the commercial production line. In many instances, however, such a sample is unsuitable. For example, a metal container coated with a resin only on the inside is not a suitable sample to be totally immersed in an extracting solution. If it is necessary to prepare special laboratory specimens, they should simulate as nearly as possible the commercial formulation, thickness of film, time and temperature of manufacture, and any aging that may occur in storage prior to food packaging. In most instances, it will be desirable to check the laboratory preparation for physical and chemical identity with commercial samples.

An unsupported film of resin is a desirable form of sample, but is not practical if the film is very thin. In this instance, one solution of the problem has been to coat electrolytically cleaned metal foil on both sides with the resin to be studied. This gives a flexible specimen that can be rolled up for compactness and won't expose extraneous material.

Choice of solvents

The use of solvent systems to simulate foods, in addition to facilitating analysis, obviates the testing of each individual food. The solvents chosen should reflect the aqueous or lipoidal character of the food and the sugar, salt and acid content, with respect to both concentration and composition.

Among the solvents that have been used for extraction tests with can enamels are: water, a 1% aqueous solution of sodium chloride, a 1% aqueous solution of sodium chloride mixed with 10% lard by weight and a 1% aqueous citric acid solution at pH 3.5 containing 10% sucrose by weight. For tests on food-wrapping films, some of the solvents that have been used are: water, a 3% aqueous sodium chloride solution, a 3% aqueous sodium bicarbonate solution, a 3% aqueous acetic acid solution, a 3% aqueous lactic acid solution, a 20% aqueous solution of sucrose, and either lard or vegetable oil.

Analytical procedures

In the analysis of extracts for minute amounts of solutes, two major steps are involved: first, the 'clean-up"; *i.e.*, the separation of the solute of

terest from substances that would interfere with its estimation and concentration of the solute to the range of sensitivity of the analytical test; and, secondly, the application of the analytical test for the detection and quantitative estimation of the solute in question. For the former, many procedures are used, including evaporation, solvent extraction either directly or by counter-current extraction procedure, chromotographic adsorption on columns or paper, distillation, microdiffusion, etc. Analytical techniques for the detection and determination of the solute include colorimetry; fluorimetry; turbidimetry; ultraviolet, visible, and infrared spectrophotometry, and radioisotope techniques.

The minimum sensitivity permissible in an analytical procedure designed to determine the nature and amount of a packaging component extracted by a food depends upon many factors and varies with specific situations. If one interprets literally the requirement that "none" of a material shall be added to a food, there can be no such minimum defined. If, however, the principle of toxicologic insignificance is applied, such definition is possible. Although the level below which the occurrence of the component is toxicologically insignificant is arrived at by more or less arbitrary judgment (based, however, upon the nature of the food; the manner of processing and storing; the conditions of use; the chemical composition, physical properties, and pharmacologic activity of the compound, and other considerations), it is a finite level and thus allows a definition of minimum permissible sensitivity.

With respect to the specificity of the analytical procedures, certain limitations may be pointed out. For example, when dealing with complex molecular structure, one should recognize that colorimetric reactions are generally specific for certain chemical groups or configurations; *e.g.*, a chlorinated side chain, a diazotizable benzene ring, or a phthalic nucleus. Thus, conclusions as to whether the entire molecule or a moiety more or less toxic than the original molecule may have been extracted should be guarded. Similarly, the use of isotope techniques permits the detection only of the tagged portion of the molecule and may leave unanswered the question of whether the intact molecule or only some fragment containing the isotope has been extracted.

In the absence of sufficiently specific chemical or physical methods for analytical purposes, advantage may be taken in certain instances of sensitive microbiological, biochemical or organoleptic assay techniques. Under carefully controlled conditions, it is possible with these methods to draw valid conclusions as to the absence of more than a stated level of a contaminant. Organoleptic techniques are primarily subjective, however, and are seldom adequate for identifying or quantitatively determining the amount of extracted material. Perhaps their most useful function is to eliminate a material from consideration, since any material that imparts a foreign odor or flavor to foods is undesirable.

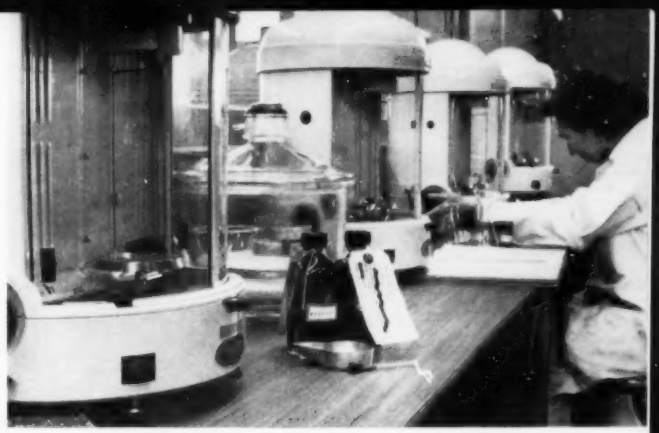


Figure 2. *Precision balances weigh extracted compounds.*

Interpretation of data

Regardless of the type of analytical approach used, replicate analyses and recovery experiments should be conducted to establish the accuracy and precision of the methods. A relatively lower order of precision is tolerable when the sensitivity of a method is high than when it is low. In other words, a method that can detect 0.01 part per million might without detriment have an error of $\pm 25\%$ or more, whereas the results of one that can detect no less than 10 parts per million should be reproducible to within perhaps 5 or 10%. As in all microanalytical methods, blank tests as well as recovery tests should be conducted. Recoveries should be reasonably good; *e.g.*, 90% when the order of concentration is one to 10 parts per million. Excessively high blanks or poor recoveries tend to vitiate the data.

Finally, it should be emphasized that the objective of extraction studies is to provide an estimate of whether extractable materials migrate from the container or wrapper into the foods and, if so, their nature and amount.

The critical factor in evaluating the safety of a packaging material is not what components enter into its production, but rather what materials derived from it may appear in food.

Reactions such as polymerization which render soluble constituents insoluble may completely prevent leaching. On the other hand, thermal decomposition of enamels or components of plastic films may render insoluble components soluble.

These considerations illustrate the importance of working with the packaging material itself rather than with any of its constituents and the need for analytical methods specific for the extracted substance unless it can be shown to be identical to (or a reliable index of) the component in question.

Polymer-coated polystyrene

Use of 0.1-mil coating is shown to reduce transmission of water vapor and gas in film and sheet, while improving resistance to abrasion and fogging. *By H. A. Scopp* and S. Black†*

Biaxially oriented polystyrene film and sheeting material has many features which make it attractive to the packaging trade (1)[1]. Among these are low cost, sparkle, clarity, stiffness, high tensile strength, dimensional stability, thermoforming qualities and resistance to aging. Surface scratching, transmission rates, fogging and grease resistance are less attractive characteristics with relation to some packaging applications. Extending the usefulness of the film, where these characteristics are important, leads to consideration of coatings.

As a result of our experimentation in coatings, it was found that the polymer coating FC-4A, applied to Polyflex[2], biaxially oriented polystyrene film, imparts those properties necessary to overcome many of the above-mentioned problems. This coating is the forerunner of a line of coated biaxially oriented polystyrene films which will give new dimension to the outlook of this material in the packaging field.

The FC-4A Polyflex is coated on one side with approximately a 0.1-mil coating. This coating is designed to decrease the water-vapor and gas transmission rates, and to improve the abrasion resistance. In addition, it is non-fogging and has a much lower coefficient of friction than uncoated polystyrene film. The measure of success of this coated film can best be judged by Table I.

As can be seen, the water-vapor rates have been reduced by a factor of approximately two for all gauges of film. These rates were determined by a

* Manager of Polymer Chemistry and † Manager of Physical Properties, Plax Corp., Hartford, Conn.
[1] Numbers in parentheses identify References appended.
[2] Plax Corp. registered trademark.

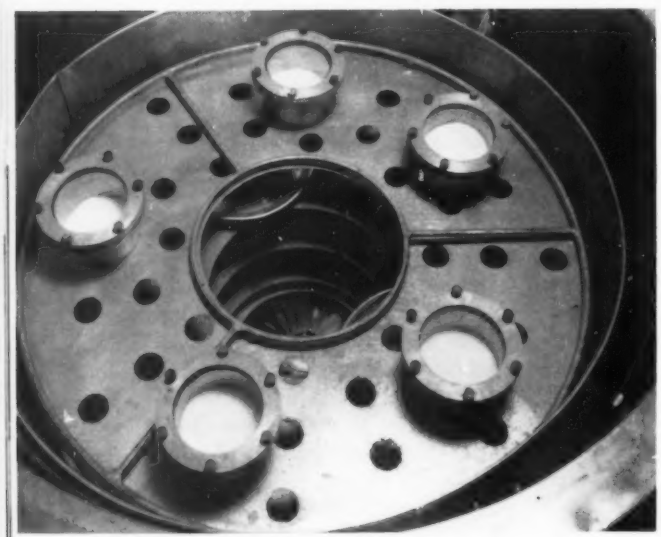
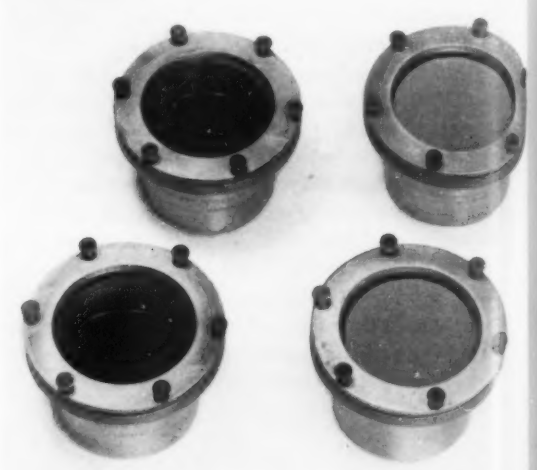


Figure 1. *Water-vapor tests of biaxially oriented polystyrene film in progress in General Foods humidity cabinet. Test procedure is ASTM E96-53T.*

Figure 2. *Shown is result of fogging-resistance tests with FC-4A coated Polyflex at left, uncoated Polyflex at right. Thwing-Albert Vapometer cups were half filled with a colored-water solution, cups were conditioned at 38 deg. F. for 1 hr., removed and placed in ambient conditions.*



st procedure similar to ASTM E96, Method E. The data for uncoated Polyflex have been reported previously (2).

In brief, the test procedure consists of placing 50 gms. of dry calcium chloride in a Vapometer test cup, mounting the film sample and exposing the assembly to a controlled atmosphere of 95% relative humidity and 100 deg. F. (see Figure 1). Periodic weight gains were measured and the results were calculated on a 24-hr. basis.

One of the more interesting observations concerning the coated film was obtained when it was found that the greatest reduction in transmission of water vapor was achieved with the coating towards the low-humidity side of the package. For example, during these tests, the rate measured with coated film was half that observed for uncoated film when the coating was facing the calcium chloride. When the film was reversed, the transfer was reduced by only one-third.

A clear-cut explanation of this phenomenon has not yet been determined, but it is postulated that when the uncoated side of the film is towards the "wet" atmosphere, the polystyrene acts as a buffer zone to the water vapor. This slows down the incidence of water molecules on the coating, thus allowing the coating to act more efficiently as a barrier.

What this means in actual packaging use is that the type of protection desired should be considered before constructing the package. If the material to be packaged is dry and is to be kept dry, the coated side of the film should be towards the inside of the package. If, on the other hand, the item to be protected is "wetter" than the surrounding environment, the coating should be on the outside. This relationship also holds true for gases, but to a lesser degree.

The best gas-barrier properties are obtained when the uncoated side is towards the gas. However, the protection offered to gases is excellent in either case, whereas with water vapor the decrease in permeability obtained with the coating on the "wrong" side is just barely significant. The gas-barrier properties of this material are principally a function of the coating and not of the base sheet. The improvement in the impermeability to nitrogen, oxygen, carbon dioxide and air is quite remarkable, as can be seen from Table I.

The abrasion resistance imparted by the coating can be attributed to a combination of slip and hardness, and of course is only present on the coated side. A standard for testing of this feature is difficult, but the Plax laboratory has been using cellulose acetate film as a criterion. In this respect, the abrasion resistance is comparable with acetate

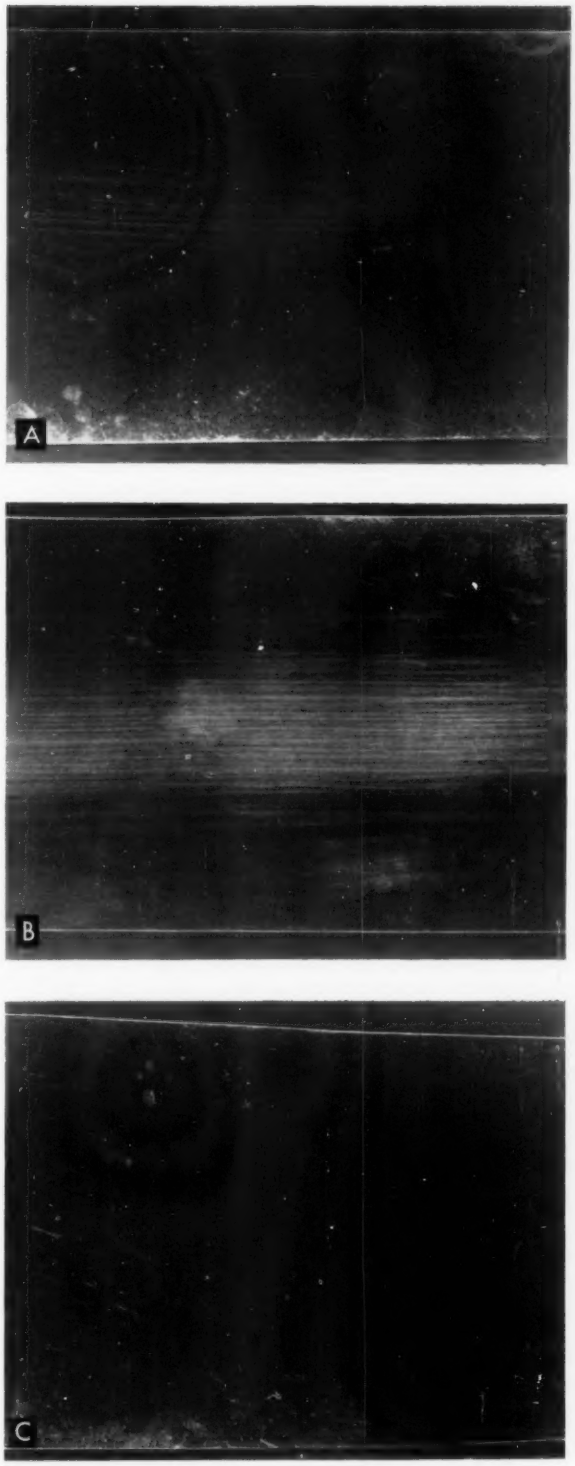


Figure 3. *Photographs of film samples abraded under same conditions;* i.e., *drawing film at a constant rate of speed (0.5 ft. per minute), abraded by steel-wool pad under 2,000-gm. load. Samples are all 0.010-in. sheeting: (A) cellulose acetate, (B) Polyflex 100 (uncoated), (C) FC-4A polymer-coated Polyflex.*

Table I: Comparative properties of cellophane, coated and uncoated Polyflex

	Cellophane 300 MDS 53 1 mil	*FC-4A coated Polyflex 2 mil*	*Uncoated Polyflex 2 mil*	*FC-4A coated Polyflex 5 mil*	*Uncoated Polyflex 5 mil*	*FC-4A coated Polyflex 7.5 mil*	*Uncoated Polyflex 7.5 mil*	*FC-4A coated Polyflex 10 mil*	*Uncoated Polyflex 10 mil*
Coating thickness, mils	0.10	0.10	0	0.10	0	0.10	0	0.10	0
Abrasion resistance	Excellent	Good	Poor	Good	Poor	Good	Poor	Good	Poor
Water-vapor rate gms./100 in.²/24 hrs./mil. (calculated)	0.7-1.0	2.4-3.2	6.2-7.0	3.2-3.7	6.5-7.5	4.1-4.8	6.8-8.2	4.5-5.5	7.0-9.0
Gms./100 in.²/24 hrs./thickness (measured)	0.7-1.0	1.2-1.6	3.1-3.5	0.65-0.75	1.3-1.5	0.55-0.65	0.9-1.1	0.45-0.55	0.7-0.9
Gas permeabilities cc./100 in.²/24 hrs.									
O_2	1.2 (dry)	1.2	125	1.0	48	0.8	42	1.0	25
N_2	0.7 (dry)	0.8-2	24	0.6	12.5	1.2	11	1.5	7
CO_2	12.1 (dry)	1-2	412	1.5	158	0.8	60	1.0	27
Air	0.6 (dry)	0.5	35	0.6	18	0.4-0.8	16	0.8	9
Kinetic coefficient of friction									
Uncoated-uncoated			0.4-0.6		0.4-0.6		0.4-0.6		0.4-0.6
Uncoated-coated		0.2-0.3		0.2-0.3		0.2-0.3		0.2-0.3	
Coated-coated	0.10-0.12	0.1-0.2		0.1-0.2		0.1-0.2		0.1-0.2	
Impact resistance in./mil (68 gm. falling ball)	68-70	6.5-7	8-12						
Tensile, psi MD	12,000	(10,000-	(10,000-	(10,000-	(10,000-	(10,000-	(10,000-	(10,000-	(10,000-
TD	5,000	(12,000	(12,000	(12,000	(12,000	(12,000	(12,000	(12,000	(12,000

film and much improved over the uncoated oriented polystyrene (see Figure 3).

A film that will not fog when used in wrapping a moisture-containing food product is highly desirable. The FC-4A Polyflex has superior resistance to fogging, because of the hydrophilic surface. In order to illustrate this property, Vapometer cups were half filled with a dyed water solution and the test films mounted. In the case of the coated film, the coating was facing the liquid. These were conditioned at 38 deg. F. for 30-60 min., then returned to ambient conditions. Fogging was observed almost immediately with the uncoated film, while the FC-4A film remained crystal clear (see Figure 2).

A low coefficient of friction assumes importance when considering high-speed packaging machinery use. The coefficient of the coated side of the film has been lowered so that it compares favorably with that of cellophane, being superior to that of normal polyethylene film (without slip additives).

There is a vast market potential for packaging foods in semi-rigid (formed) containers which presently is not being exploited. This situation exists because many foods require a package with extremely low gas and water-vapor rates, as well as product resistance.

Among the various types of foods which can utilize the lowered WVTR and/or the enhanced gas resistance are breads and cakes; cereals; fresh, smoked and salted fish; frozen foods, including meat, vegetables, fish and fruits; dried and candied fruits; nuts, and cheeses. A package for processed meats, which requires low oxygen-transfer rates, is now feasible with the FC-4A coated Polyflex. The product resistance (including greaseproofness) offered by this coated film also enables the packaging of greasy or oily foods such as butter and oleomargarine.

FC-4A Polyflex has been produced in experimental lots and has been made available for sampling.

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1. Dulmage, F. C., "Polystyrene Film," MODERN PACKAGING, Sept., 1958, pp. 154-157, 226.
2. Scopp, H. A., and Adakonis, A., "WVTR of Oriented Polystyrene," MODERN PACKAGING, Dec. 1958, pp. 123, 172.


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Skin-tight polyethylene wraps

Q: *Where can I get an inexpensive machine that will put a skin-tight overwrap of polyethylene around such bulky textile products as drapes, slip covers and bolts of material?*

A: We have received numerous inquiries recently on this subject. There are, of course, at least five conventional overwrapping machines on the market that can handle polyethylene. There are also at least two horizontal wrapping machines that overwrap by forming a tube around the product and sealing the ends. None of these machines, however, is inexpensive and while they can be adjusted to give taut overwraps, they will not generally produce a skin-tight wrap. The main advantage of these machines is their speed. Most can now be operated at rates of 50 to 70 packages per minute on small textile items. None of these automatic packagers can handle big bolts of cloth, however. Another disadvantage of these machines is that most of them cannot be changed over quickly to handle products of radically different shape or size.

Another solution to your problem might be one of the many small semi-automatic baggers now on the market. These are being increasingly used for textiles and produce a very satisfactory package. Polyethylene film bags can be obtained with thin-line, almost invisible heat seals on the sides and bottom. The machine holds a stack of about 100 bags and automatically feeds them into position on the loading horn. Two spring-loaded arms enter the mouth of the bag and stretch it to accommodate the product, which is slid in by hand. This mechanical arrangement enables a smaller bag to be used, which gives a very tight fit around the product.

Bags can be closed on a hand heat sealer, or several of the baggers can be arranged to discharge into a central conveyor that carries the filled packages to a single automatic heat sealer. These machines are reasonably fast when operated by trained personnel and are completely flexible, being capable of almost instant change-over to different products or bags of different size. Special models are being used for bolts of cloth up to about 6 ft. in length.

Institut fur Lebensmitteltechnologie
und Verpackung,
Muñchen 54, Germany.

To the Editor:

Mr. MacDougall has sent us a copy of his letter [Modern Packaging, June, 1959, p. 140].

The passage on page 122 in Modern Packaging, Aug., 1958, has been misunderstood by Patra. All dish methods—and the Patra method is indeed their prototype—and of course our glass-dish method as well, have the disadvantage that their accuracy, when measuring packaging materials of low water-vapor permeabilities, is dependent not so much on the exactness of weighing as on the tightness of the wax seal. A value of 0.5 g./m.²/24 hrs. can therefore be measured only with an accuracy of about 20%, because of adsorption phenomena on the paraffin, on the dish, capillary cracks in the paraffin, sorption on the paper and the like. Sufficiently exact values of packaging materials with a lower vapor permeability can be obtained by measuring the weight increase of silica gel-filled pouches. This method calls for heat-sealing properties of the packaging material and requires a water-vapor permeability of the heat seal equal to that in the plane. This condition is according to experience almost always fulfilled. The great advantage of this method is a considerably larger plane of the sample with almost the same weight and the abolition of the above-mentioned inaccuracies connected with the wax sealing. Thereby the accuracy compared to that of the dish method is raised considerably. The measurement of shelf life on completed packages is something different.

Yours faithfully,
Prof. Dr. R. Heiss

F&DA-approved materials

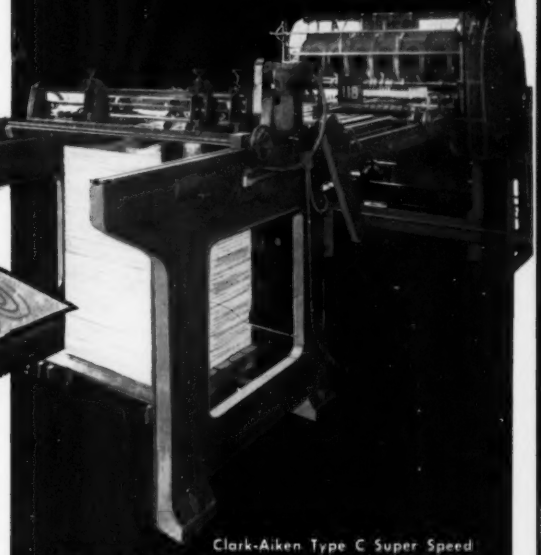
Q: *We have read your first article on the new Food Additives Law with interest. Where can we get a list of approved packaging materials for foods?*

A: The answer, simply, is that you cannot get any list. Most of the packaging materials now approved by the Food & Drug Administration were cleared under so-called "prior sanctions." These were more or less informal letters issued by F&DA before the present law went into effect, stating that under the conditions of use outlined by the packager or supplier a particular package of a certain stated composition could be used without objection by F&DA.

These rather narrow opinions were based on secret manufacturing data given to F&DA by the suppliers or packagers, which the federal agency cannot reveal.

Official tolerances for packaging materials established under the new law will be published in the *Federal Register*. However to date, though a few petitions have been received by F&DA, none has been cleared.

packaging profits start in the finishing room with *Clark-Aiken* equipment



Clark-Aiken Type C Super Speed Cutter and Piler precision sheeting aluminum foil direct from a laminating press at Pacific Coast Foil's San Francisco Plant.

Pacific Coast Foil Company found the versatility of their Clark-Aiken Sheeter makes it a profitable adjunct to their aluminum foil converting operation because it cuts production time and shortens delivery schedules.

In addition their Clark-Aiken Cutter-Piler enables them to handle, with ease, a wide weight range of laminated materials, single roll feeding of the lightest weight substances and any sheet size common to converting operations. It also adjusts quickly to rapid short-run changeovers to different sheet lengths and cuts maintenance costs to a minimum.

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Plants & People

Continental Can Co., New York, has purchased the assets and business of **Fort Wayne Corrugated Paper Co.**, Fort Wayne, Ind. Upon completion of the transaction, Fort Wayne Corrugated will be liquidated.

LeBeau

Carter N. LeBeau has been appointed sales mgr. of **Mojonnier Associates**, Franklin Park, Ill. He was formerly sales mgr. of **Kartridg-Pak Machine Co.**, Chicago, of which Mojonnier is now a div. Last October Kartridg-Pak acquired the 12-year old firm which specializes in the manufacture of aerosol-filling machinery. Mr. LeBeau will continue to handle Kartridg-Pak sales.

Container Corp. of America, Chicago, has appointed **Morton H. Robinson** as national product mgr. for dairy products and meat packaging in the Folding Carton Div. He was formerly sales mgr. at the company's Fort Worth, Tex., folding-carton plant. **Robert P. Barse** has been named mgr. of dairy products, parafinned and soft-drink cartons at Container Corp.'s Fort Worth plant. **John L. Phillips** is in charge of dry carton sales at the same plant.

Robert L. Muskat has been elected pres. of **Triangle Package Machinery Co.**, Chicago. He succeeds **L. R. Muskat**, who becomes board chairman. In other executive promotions, **Peter Muskat** has been named vice chairman of the board and **Walter P. Muskat** becomes exec. v.p.

Chicago Molded Products Corp., Chicago, has acquired **Capac Plastics, Inc.**, Minneapolis. Capac's plant will be modified to incorporate techniques for the production of Campco sheet and film, reports Chicago Molded Products.

Richardson

O. F. Richardson has been named v.p. and director of sales at **Coates Board & Carton Co.**, Garfield, N.J. Mr. Richardson comes to Coates from **Minnesota Mining & Mfg. Co.**, St. Paul, where he was national sales mgr. of commercial products. He is considered an authority on sales promotion and marketing.

Robert S. Long has been appointed to the newly created post of new products mgr. for the Glass & Plastics Group of **Continental Can Co.**, New York. He was formerly gen. line sales mgr. for Concan's Paper Container Div. **Beaven W. Mills** has been named Eastern regional sales mgr. for folding cartons in Concan's Boxboard & Folding Carton Div. He succeeds **O. R. Gibbons**, who has joined **Olin Mathieson**.

Union Bag-Camp Paper Corp., New York, has appointed **R. Carter Howard** as director of containerboard sales. He succeeds **Albert G. Naudain**, who has resigned. Mr. Howard joined the company in 1954, and served most recently as asst. director of containerboard sales.

Alexander J. Castle has been appointed head of a new aluminum-foil packaging-research dept. for **Kaiser Aluminum & Chemical Corp.**, Oakland, Calif. As mgr. of the foil div. of the Container Research & Development Center in Chicago, Mr. Castle will be responsible for a program to develop new end uses for foil packaging materials and to improve existing materials.

Earl F. Schimkola has been promoted to sales mgr. for custom polyethylene bags by **The Dobeckmun Co.**, Cleveland, div. **The Dow Chemical Co.** **Nason E. Allen** moves up from asst. sales mgr. to succeed Mr. Schimkola as mgr. of the stock products div. **Robert R. Gilbert** has been named to succeed Mr. Allen.

Schimkola *Allen*

The title of the **Glass & Closure Div.** of **Armstrong Cork Co.**, Lancaster, Pa., has been changed to **Packaging Materials Operations** to more accurately describe the scope of its activities. Though no organizational changes are involved, the change of title does indicate an interest in increasing its present product lines in plastics and in searching out additional ones, reports the company.

Newly elected pres. of **National Paper Boxes, Inc.**, Kansas City, is **Charles A. Alig.** He succeeds **Howard A. Salisbury**, who becomes board chairman. **Robert W. Hershey** has been named exec. v.p., succeeding **James T. Sadler**, retired. **Donald K. Chism** becomes v.p. of sales and **George A. Cox** becomes v.p. of production.

Robert W. Swett has been elected pres. and treas. of **American Tag Co. of New Jersey**, Belleville, N.J. He succeeds **A. H. Swett, Jr.**, who has retired from active management duties. The new pres. was formerly v.p. in charge of sales for the supplier.

Cutter Laboratories, Berkeley, Calif., has acquired all the assets of **Olympic Plastics Co.**, Los Angeles. Olympic produces a variety of plastic containers (both squeeze bottles and rigid blown containers) for drugs, foods and cosmetics. Present management, staff and operating personnel at Olympic will remain unchanged.

A realignment of its sales dept. into four districts has been anounced by the Polymer Chemicals Div. of **W. R. Grace & Co.**, Clifton, N.J. **Ralph Biondi** has been named mgr. of the Northeastern district, including New York and New England. He will be based in Clifton, N.J. As mgr. of the Middle Atlantic and Southern district, **Warren Petersen** also will locate in Clifton. **W. D. Singleton**, headquartered in Chicago, will be in charge of the Midwestern district. The Western sales district will be managed from Los Angeles by **DeWitt Cheney**.

Kenneth N. Bacon has been appointed advtg. and promotion mgr. of **Clupak, Inc.**, New York. Clupak was formed in January, 1958, to handle licensing, promotion and research activities for a process for making extensible paper.

A new corporation has been formed to develop urethane-foam sandwich material for a variety of commercial applications, including protective packaging. The new company, **Foam-Flex Corp.**, is located at 550 Fifth Ave., New York. **Joseph M. Gordon**, a principal of the corporation, was previously sole licensee of a patented process and apparatus to continuously sandwich urethane foam between kraft paper or combinations of plastic films and foils.

Stempel

The board of directors of **Morningstar-Paisley, Inc.**, New York, has elected **Murray Stempel** as pres. of the company. He succeeds **George J. Muller**, who has been elected vice chairman of the board. Mr. Stempel, who has been associated with the Morningstar companies for the past 35 years, was exec. v.p. before being awarded his recent promotion.

J. D. Tudor has been appointed mgr. of national accounts for the Folding Carton Div. of **The Flintkote Co.**, Los Angeles. **Bert Scandelle** has been named sales mgr. for the same div. The Folding Carton Div. is part of Flintkote's Paperboard Division.

Plax Corp., Hartford, has appointed **Oke R. Henstrand** to the post of advtg. and sales-prom. mgr. for its plastic packaging materials.

Koppers Co., Pittsburgh, has purchased **George W. Swift, Jr., Inc.**, Bordentown, N.J., manufacturer of machinery for the

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Plants & People *(Cont'd)*

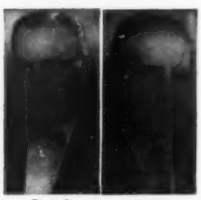
corrugated-container industry. Swift will be combined with Koppers' **F. X. Hooper** box-machinery dept. to form the Container Machinery Dept. of Koppers' **Metal Products Div.**

Ed Laxo has been appointed special can-making machinery designer in the Container Div. of the **E. W. Bliss Co.**, Canton, O. Mr. Laxo, who holds 70 patents for can-making machinery inventions and improvements, has been active in the industry since 1918. He has been associated with both the **Seattle Can Co.** and **Continental Can Co.** Later, he was an operating partner in the **Modern Can Machinery Co.** Prior to his current appointment, he owned and operated the **Progressive Can Machinery Co.**, Alvarado, Calif.

Container Corp. of America, Chicago, has bought the **Arizona Container Corp.** of Phoenix. The new acquisition will be operated as a sub. and will continue to serve its present customers as well as helping supply concerns in the Phoenix area now being served by the parent company's Los Angeles corrugated-shipping-container plant.

Morris Shaw has been promoted to gen. sales mgr. of **Ever Ready Label Corp.**, Belleville, N.J. Formerly New York district sales mgr., Mr. Shaw has been with Ever Ready since 1945.

Clifford Sands has been appointed industry mgr. for rigid containers by **Aluminum Co. of America**, Pittsburgh. **Phillip C. Althen** has been named tech. mgr. for the same commodity. Both men will be responsible for coordinating all Alcoa activities in the aluminum rigid-container field. Mr. Sands joined the company in 1943, working from its Cleveland sales office. Mr. Althen was formerly mgr. of the packaging section of **Alcoa's sales development** div. at New Kensington, Pa. He will continue to serve as chairman of the firm's subcommittee on aluminum packages and closures.



Sands *Althen*

J. C. Swearengen has been appointed director of research and engineering by **Glass Containers Corp.**, Fullerton, Calif. **W. A. Seitz** has been promoted to mgr. of Northern plants, with responsibility for glass manufacturing operations at the company's Hayward and Antioch, Calif., locations.

United Board & Carton Corp., New York, and **Interstate Container Corp.**, Glendale, N.Y., have agreed to merge. United Board will be the surviving corporation.

Robert G. Wirthlin has been named sales mgr. for **Horix Mfg. Co.**, Pittsburgh. He was formerly Western sales mgr. for **Metro Glass Co.** in Chicago. Horix makes liquid-filling equipment.

Frank Cannon has been named Eastern regional sales mgr. of the Multiwall Bag Div. of **Owens-Illinois Glass Co.**, Toledo. He succeeds **George S. Harvey, Sr.**, and will locate in New York.

Birdsey

William C. Birdsey, who joined the company last year, has been appointed gen. mgr. of the paperboard div. of **Fibreboard Paper Products Corp.**, San Francisco. He was formerly gen. mfg. mgr. for the Pioneer Paper Products Div. of **The Flintkote Co.** Mr. Birdsey had been with Flintkote for many years as a plant and manufacturing executive.

In a joint announcement, **Inland Container Corp.**, Indianapolis, and **The Mead Corp.**, Dayton, O., report the establishment of the **Forest Kraft Co.** for the purpose of financing an expansion program in the mill of the **Rome Kraft Co.**, Rome, Ga., to meet expected containerboard requirements of the two parent companies.

A second plant for the manufacture of Mylar polyester film will be built near Florence, S.C., by **E. I. du Pont de Nemours & Co.**, Wilmington, Del. The new plant reportedly will double Du Pont's production capacity for the industrial and packaging film.

N. H. Collisson, v.p., becomes operating head of the Metals Div. of **Olin Mathieson Chemical Corp.**, New York. Mr. Collisson, formerly in charge of production and engineering, is also pres. of **Ormet Corp.**, an aluminum-producing sub. of Olin and **Revere Copper & Brass, Inc. M. L. Herzog,** v.p., has been appointed gen. mgr. of operations in the Metals Div. Mr. Herzog had been in charge of film activities of the Packaging Div. From 1955 to 1957, Mr. Collisson was in charge of Olin's Packaging Division.

Gibbons

O. R. Gibbons has been appointed product mgr., cartons, for the Packaging Div. of **Olin Mathieson Chemical Corp.**, New York. He will direct carton production and sales from Forest Products headquarters in West Monroe, La. Mr. Gibbons, who has been active in the carton manufacturing and marketing field for 15 years, was formerly Eastern regional sales mgr. for cartons at **Continental Can Co.**

Dr. Bernard Oser has been appointed consultant on coatings for aluminum foil by **Aluminum Co. of America**, Pittsburgh. He will advise on non-toxic coating processes for foil to be used in the packaging of food.

Show-Pak, Inc., is the name of a new company formed by **Woodhill Chemical**

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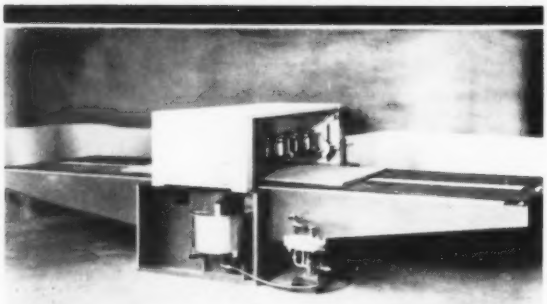

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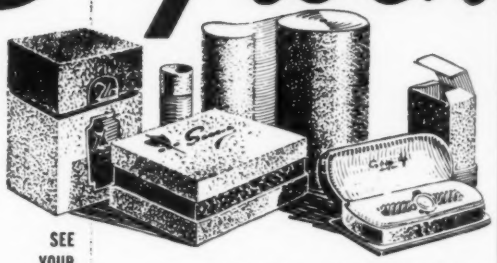

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Co., Cleveland, to do contract vacuum-forming jobs for companies which use clear plastic blister or skin packages for their products. The new firm is under the direction of **Philip Freeman**. Its sales mgr. is **Victor Gelb**.

Formerly v.p. in charge of planning, **Shy Rosen** is now senior v.p., a newly created position at **Milprint, Inc.**, Milwaukee. He will assist in the general management of the corporation. **Bert Hefter**, who has resigned from active participation in company business, has been succeeded as v.p. and director of marketing by **Walter J. Hullinger**. Mr. Hullinger was formerly v.p. and gen. sales mgr. Mr. Rosen, who is a director of the company, has been associated with Milprint for nearly 30 years.

Rosen *Hullinger*

Eureka Specialty Printing Co., Scranton, Pa., has appointed **Myron E. Sills** as sales mgr. of the firm's new Tape & Label Div. He will headquarter in Eureka's New York sales office. Mr. Sills also will be responsible for sales of the company's newly acquired **Mark'Andy Div.** in St. Louis, which produces pressure-sensitive tapes and labels.

At a recent meeting of the board of directors of **Lyon Metal Products, Inc.**, Aurora, Ill., **J. M. Olesen** was elected exec. v.p. Mr. Olesen, who joined Lyon in 1929, had been v.p. in charge of sales since 1952 and a member of the board since 1955.

Charles J. Kurtz, pres. since 1929 of **National Industrial Products Co.**, Columbus, O., resigns that post to become board chairman. He is succeeded by **James F. Kurtz**, former v.p. and treas. Among the company's subs. are **Exact Weight Scale Co.** and **The Keever Starch Co.**

Willard L. Newman has been appointed mgr. of package development for **General Electric Co.**'s manufacturing laboratory in Schenectady, N.Y. Mr. Newman has been involved in GE packaging operations for 26 years. He has also been on the staff of the **Mfg. Services Packaging Laboratory** since its inception in 1953. In addition to his new duties, Mr. Newman will continue to offer test facilities, consultation, problem assistance, evaluation and communication service on all subjects related to packaging development.

Newman

Alfred Coz has announced the formation of a new company for producing thermoplastic materials. **Coz Chemical Corp.** is located on Providence Rd. in

Plants & People [*Cont'd*]

Northbridge, Mass. **Henry Coz** has been named sales mgr. for New England.

National Rubber Machinery Co., Akron, O., recently anounced the appointment of two new executives in its Extruder Sales Div. **Richard K. Senn** is now sales mgr. for the div. and **L. G. Turk** has been named operating mgr.

Richard D. Dodge has been promoted to exec. v.p. of **Dygert & Stone, Inc.**, Rochester, N.Y. The company is a supplier of packaging paper, foil, plastic film and packaging equipment. Before joining Dygert in 1951, Mr. Dodge was a packaging engineer with the **General Electric Co.** in Syracuse.

Irving Trabich has been named director of product and package design for **Hazel Bishop, Inc.**, cosmetics packager.

Sheffield

Peter K. Sheffield has been promoted to asst. secy. of **The Sheffield Tube Corp.**, New London, Conn. Mr. Sheffield, who is active in the company's Midwestern sales, has been headquartered at the Broadview, Ill., div. since 1946. The company manufactures collapsible metal tubes for use in the packaging of pharmaceuticals, cosmetics, industrial products and household items.

The Southern Packaging Div. of **Fibreboard Paper Products Corp.**, San Francisco, has appointed **W. F. Call** as sales mgr. for industrial packaging. **E. T. Creager** is now handling general packaging sales, and **L. E. Ellis** has been appointed sales mgr. for distributor packaging. The three newly promoted men will headquarter at the Southern Packaging Div.'s office in Los Angeles.

Robert R. Eliker and **Edward A. Greer** have been elected to the board of **The Specialty Papers Co.**, converter and printer of flexible-packaging materials, Dayton, O. Mr. Eliker is v.p. in charge of mfg. Mr. Greer has been v.p. in charge of sales since last year.

Richard D. Darley succeeds his father, the late **E. D. Darley**, as pres. of **F. B. Chamberlain Co.**, contract packager, St. Louis. The elder Darley died of injuries received in an automobile accident.

John R. Lauterbach joins **National Wax Co.**, Skokie, Ill., as mgr. of domestic sales. **Clifford R. Swett** and **Wilbur J. Noll** become vice presidents.

The Champion Paper & Fibre Co., Hamilton, O., has purchased the business of the **Buffalo Envelope Co.**, manufacturer of commercial envelopes.

The Champlain Co., manufacturer of rotogravure printing and fabricating equipment, recently moved into its newly constructed headquarters building in Roseland, N.J. The one-story plant covers nearly 80,000 sq. ft., more than

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Plants & People [*Cont'd*]

three-quarters of which is devoted to the manufacture, assembly and testing of the company's line of equipment. Sales, purchasing, personnel and other executive offices are all integrated at the new facility.

Price

Paxton S. Price becomes sales mgr. of the Louisville Div. of **Mead Containers, Inc., sub. The Mead Corp.,** Dayton, O. He joined the company last year as mgr. of national accounts for the Louisville Div. In another company promotion, **Nelson S. Mead** has been named a director of The Mead Corp. He has been asst. to the pres. since 1954 and also is pres. and director of **Mead Pulp Sales, Inc.**

Wabash Fibre Box Co. has been merged into its parent company, **Weston Paper & Mfg. Co.,** Dayton, O., and will be operated as a div. No changes in personnel or policies are contemplated.

E. I. du Pont de Nemours & Co., Wilmington, Del., has opened a new cellophane plant at Tecumseh, Kan. The new facility has an annual capacity of 50,000,000 lbs.

A $12,000,000 expansion program has been initiated in the Louisiana Div. of **The Dow Chemical Co.,** Midland, Mich. A new polyethylene plant and facilities for the production of vinylidene chloride and chlorothene will soon be under construction.

Eastman Chemical Products, Inc., Kingsport, Tenn., reports that capacity for the production of polyethylene at **Texas Eastman Co.,** Longview, Tex., is being increased from 85,000,000 lbs. to 100,000,000 lbs. annually.

Fasson Products, div. Avery Adhesive Products, Painesville, O., plans a plant expansion that will increase by more than 50% its capacity for the production of self-adhesive materials for converters and printers.

In line with the company's modernization and expansion program, additional glass-forming machinery has been installed at the Palestine, Tex., plant of **Knox Glass, Inc.,** Knox, Pa.

Richardson Scale Co., Clifton, N.J., has moved its Philadelphia district office to 11 Park Rd., Haverton, Pa.

Crescent Ink & Color Co., Philadelphia, is constructing an addition to its Milwaukee plant. The new addition will provide more space and equipment for the company's rotogravure and flexographic-ink manufacturing departments.

Stein, Hall & Co., New York, reports an addition to its adhesive research and development facilities at Long Island City. A paper-gumming, coating and laminating machine has been installed

...ill be used in the company's program on remoistenable, heat-sealable, barrier, hot-melt and other specialty coatings.

Coates **Board & Carton Co.,** Garfield, N.J., has begun a major expansion and improvement program that will cost more than $1,000,000.

Lawrence H. Singer, designer, has moved to new and larger quarters at 605 Fifth Ave., New York.

Sherman Paper Products Corp., Newton Upper Falls, Mass., has concluded a license agreement with Sorg Paper Co., Middletown, O., for the manufacture by Sorg of latex-coated cohesive papers under Sherman Paper Products' existing patents.

A new package-research service has been launched by **Harold V. Bell & Associates,** New York. The service involves laboratory testing of label visibility and legibility.

Modern Plastic Machinery Corp. has moved to a larger location at 64 Lakeview Ave., Clifton, N.J.

Its third Latin-American glass-container plant is to be put into operation this year by **Owens-Illinois Glass Co.,** Toledo, O. The plant is located in Bogota, Colombia. O-I has purchased the physical assets of a Colombian glass-making firm, which discontinued operations last year, and will rebuild the plant and install new equipment.

Ball Bros. Co., Muncie, Ind., plans to build a multi-million-dollar glass-container plant near Asheville, N. C. The facility is expected to be in operation at the end of this year, producing bottles and jars for the food, beverage, chemical and pharmaceutical industries.

Extrudo-Film Corp., Long Island City, N. Y., has begun construction of a plant in Pottsville, Pa., which, when in operation, is expected to quadruple the company's present output of extruded polyethylene film, sheet and tubing. It is scheduled to open next month.

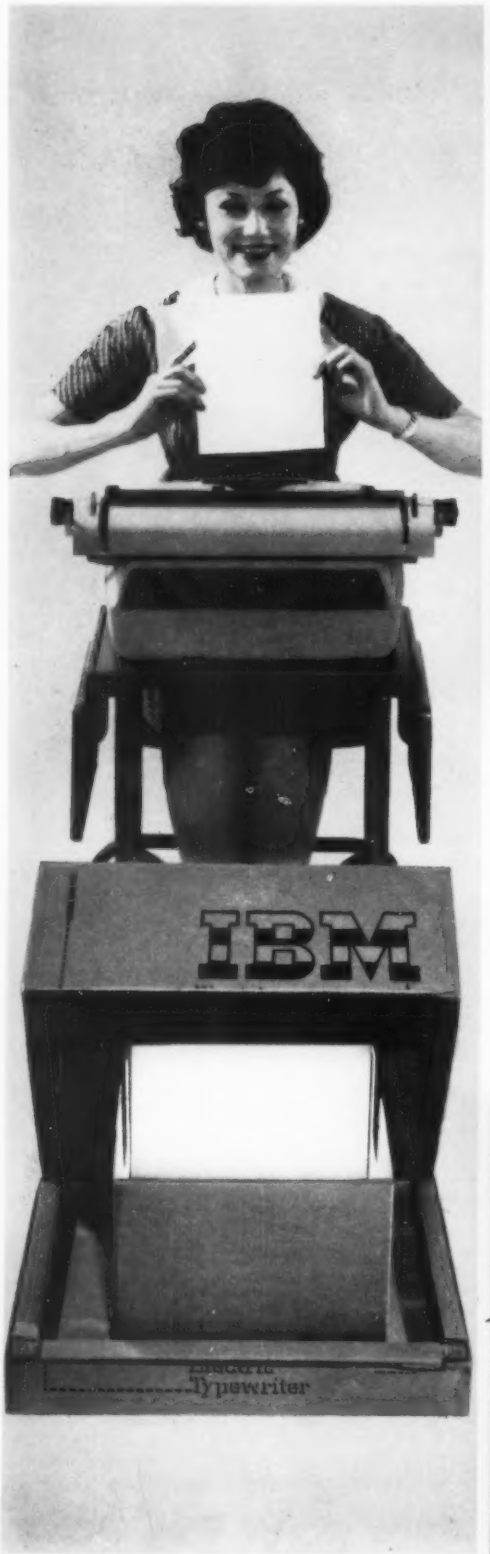
The Plastics Div. of the **Nopco Chemical Co.,** Harrison, N. J., reports that it is building an annex that will increase sixfold the size of its present plant at North Arlington, N. J. The annex is designed to increase the supplier's capacity for the production of polyurethane flexible foams.

Monsanto Chemical Co., St. Louis, reports that it will increase production capacity of linear polyethylene at the Texas City, Tex., location of its Plastics Div. to 100,000,000 lbs. this year.

Southwestern Steel Container Co., Dallas, is now producing steel pails and drums at its new plant.

Facilities for the manufacture of corrugated shipping containers in the Chicago area have been acquired by the **Gaylord Container Corp., Div. Crown Zellerbach Corp.,** St. Louis. The plant will be remodeled and will also house

[Continued on page 134]



PROTECTS PRODUCT FINISH: This carton insert coated with ALATHON protects the finish of IBM Electric Typewriters and improves packaging efficiency. Coated by Cotswold Fibres, Columbus, Ga. Box manufactured by The Mengel Co., Lexington, Ky., for IBM Corp., N. Y., N. Y.)

SNAPS BACK: Attractive mustard barrel of ALATHON 20 has outstanding snap-back and special reseal cap. Its functional design provides excellent sales stimulus. (Molded by Continental Can Co., for Plochman & Harrison, Chicago. Closure by Stull Engraving, Garfield, N. J.)

RESISTS MOISTURE: Aunt Jemi ready-mix pancake package has in coating of ALATHON 16 to keep moist out, prevent mix from lumping. A ALATHON makes possible strong heat se (Coated by Riegel Paper Co., N.Y., N for Quaker Oats, Chicago, Ill.)

For packages givin ma
speci a D

RESISTS TEMPERATURE EXTREMES: Heat-and-serve package of foil an paper is coated with Du Pont ALATHON 16 for strong heat seals that withstan freezing and boiling. Seals will hold for two hours in boiling water, a big margi of safety over the four- to seven-minute cooking time. (Coated by Print-A-Tub Co., Rochelle Park, New Jersey, for Excelsior Quick-Frosted Meat Produc Inc., Long Island City, New York.)

SAVES TIME: Using Du Pont ALATHON 23A helped eliminate a bottleneck by cutting shoe packaging time 33⅓%. And packaging in ALATHON saves 1¢ per pair over previous packaging costs. ("See Safe" packaging machine and film by Mehl Manufacturing Company, Cincinnati, Ohio, for Weber Shoe Company, Tipton, Missouri.)

maximum protection at low cost

Du Pont ALATHON® polyethylene resin

There are twelve commercial formulations of ALATHON polyethylene resins specifically designed for packaging applications. So whether you require an unsupported film, coating, or a molded container or closure, there is an ALATHON best suited for your need.

These illustrations show how five smart packagers are better protecting their products at lower costs—through the use of Du Pont ALATHON. Why not join them?

For more information on the ALATHON tailored for your particular use, or for all future issues of PACKAGING TRENDS magazine, simply fill in coupon below.

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Plants & People

[*Continued from page 131*]

Gaylord's Chicago sales office. **G. V. Sans Soucie** has been appointed plant manager.

Hooker Chemical Corp.'s new Research Center, located near the company's Niagara Falls, N. Y., headquarters, is now in operation and will be formally dedicated later this year.

Ohio Boxboard Co., Rittman, O., has purchased land at Lancaster, Pa., for construction of a $2,000,000 corrugated-container plant, which is scheduled to begin operations this summer.

As a result of a $3,000,000 expansion program, **Fairmount Glass Works, Inc.**, Indianapolis, reports that it has increased its productive capacity by 50%. New facilities include six automatic bottle-making machines, an annealing-lehr room and a two-story packing and selecting room.

Research Molding & Film Co. has opened a new plastic-film extrusion plant at Menden, Mich. Initial polyethylene film production will be used for produce and garment packaging.

Plastic Papers, Inc., has completed construction of its new 27,000-sq.-ft. polyethylene-coating plant at 210 Miller Rd., Hicksville, N. Y. The company will make its headquarters at that address.

Promotions

E. H. Jones, Jr.: to gen. sales mgr., Kraft Div., **St. Regis Paper Co.**, New York. **Dr. Richard C. Crain:** to tech. director, **Rhinelander Paper Co.**, div. St. Regis, Rhinelander, Wis.

Richard J. Walters: to exec. v.p., **United States Printing & Lithograph Co.**, Cincinnati.

Eugene V. Gear: to director of Fibreboard Creative Design Center, **Fibreboard Paper Products Corp.**, San Francisco. **James J. Bauer:** to gen. mgr., **Precision Electrotype Co.**, sub. Fibreboard Products, also of San Francisco.

William W. Gordon: to asst. to the board chairman, **Standard Packaging Corp.**, New York. **Richard W. Koch:** to board of directors.

J. Franklin Everett: to mgr., closure technical service, Research & Development Center, **Armstrong Cork Co.**, Lancaster, Pa.

James O. Harris and **C. Wayne Smith:** to v.p., **Inland Container Corp.**, Indianapolis.

Russell D. Scribner: to gen. mgr., Central Region, **Boxboard & Folding Carton Div., Continental Can Co.**, New York. He succeeds **Charles A. Colbert**, resigned. **W. C. Curtis:** to Central Div. sales mgr. for **Concan's Flexible Packaging Div. James K. Cooper:** to asst. product sales mgr. of nonfood cans.

M... Div. **Peter H. Black:** to asst. pr... sales mgr. for nonprocessed fo... and meat containers, also in the M... Div.

Ja... H. **Sims:** to Kansas City district sales mgr., Central Metal Div., **Continental Can Co.**, New York.

Neal **Banter:** to director, Midwest carton sales, **Federal Paper Board Co.**, Bogota, N.J. He will continue to direct carton sales for Federal's **Lindley Box & Paper Div.**

P. W. **Triplett:** to mgr., Chicago district office, Packaging Materials Operations, **Armstrong Cork Co.**, Lancaster, Pa. He succeeds **R. W. Mattern. John H. McCrea:** to mgr. of Armstrong's Detroit office, succeeding Mr. Triplett. **H. Glenn Eshelman:** to mgr. of the Cleveland office.

John W. O'Connor: to v.p. and director, **Paper Corp. of United States**, New York.

Alan G. Richards: to v.p., **Bjorksten Research Laboratories**, Madison, Wis. The company conducts sponsored research and development for government and industry in many fields, including polyesters and sizings for glass fibres.

W. H. Dillon: to sales mgr., Minneapolis, **Bemis Bro. Bag Co.**, St. Louis.

Calvin P. Balcom: to v.p. in charge of mfg., **Cello-Foil Products, Inc.**, Battle Creek, Mich.

Kermit Greene: to v.p. and asst. gen. mgr., Eastern div., **Sherman Paper Products Corp.**, Newton Upper Falls, Mass.

Frederick W. Hertzler and **Robert Plantholt:** to design associates, **Harley Earl Associates**, industrial designer, New York.

Appointments

Carl J. Hahn: to director, sales and product development, **Western Sinclair Plain & Printed Tape Co.**, sub. **The Adhesive Products, Inc.**, Albany, Calif.

John J. Redmon: to regional sales mgr., **Southwestern Steel Container Co.**, Dallas, Tex.

Bernard J. McMahon: to asst. sales mgr., Chicago div., **Wabash Fibre Box Co.**, Terre Haute, Ind.

Theodore Black, Raymond Stoy and **Raymond Avery:** to designers, **Robert Zeidman Associates**, New York.

Hyon Ho Shin: to director, laboratory and quality control, **Packaging Corp. of America**, Los Angeles.

Obituaries

F. Jack **Jeuck**, sales v.p. of the **Printing Ink Div., Interchemical Corp.**, New York, was killed May 12 in an airliner explosion near Baltimore. He was en route to a business meeting in Atlanta. Mr. Jeuck had been associated with IPI since 1926, and was a specialist in package printing.

All these products profit from aut

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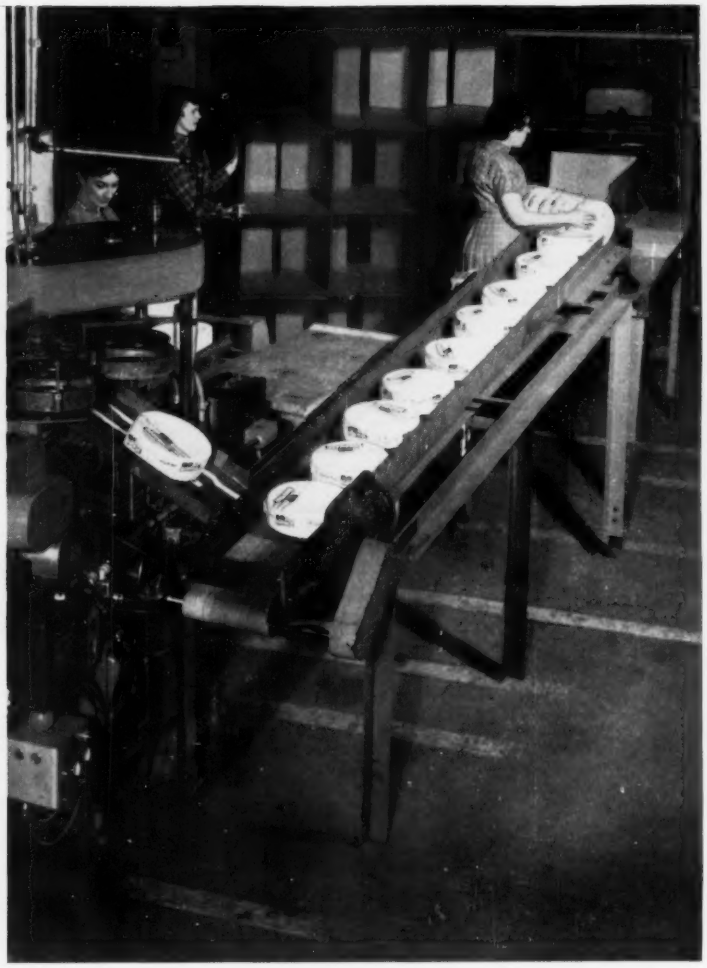


ut matic packaging in polyethylene!

One thing these products have in common is a higher profit margin—gained from high-speed machine wrapping in lower-cost polyethylene. Machines are available *today* that will wrap even irregular-shaped products in this durable plastic.

Tagged with the lowest price of any transparent film, polyethylene sells every product it protects. Bread gets the feel of freshness through the soft fresh texture of polyethylene. Candy shows its colors, invites buyers. Slippers, stockings, men's shirts, paper napkins go from shelf to customer without losing their brand-new *sparkle*.

How about *your* product?

Ask the experts about packaging it automatically in lower-cost BAKELITE Brand Polyethylene. Leading automatic wrapping machine manufacturers will fill you in on their new equipment for handling this low cost film. Or write Dept. GD-07M, Union Carbide Plastics Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, New York, for the special packaging booklet that gives you all the profitable facts and figures. In Canada, address Carbide Chemicals Company, Division of Union Carbide Canada Limited, Toronto 7.

UNION CARBIDE

BAKELITE and UNION CARBIDE are registered trade marks of Union Carbide Corporation.

Equipment & Materials

[Continued from page 46]

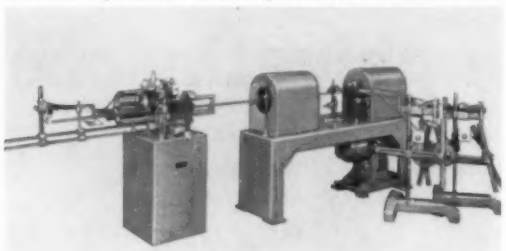
that it has developed a new type of metal stay—available in colors—that offers better box appearance, stronger corners and resistance to rust. The company also has developed a simultaneous four-corner staying machine, called the Quatre Metlstayer. Among its cited advantages are an automatic magazine feed, an adjustable carton folding device and automatic application of metal stays at a rate of up to 2,000 boxes per hour. According to the manufacturer, the new unit (which accommodates boxes ranging in size from 2 by 2 by ¾ in. to 20 by 20 by 6 in.) cuts labor costs by two-thirds or more. As an additional part of its new program, the firm is making available metal-stay box blanks which may be supplied pre-folded to eliminate the need for hand breaking of creases by customers. For additional details, contact *St. Regis Paper Co., Crowell Carton Div., Marshall, Mich.*

Ball-drop testing apparatus

A new testing instrument—the Nopco Ball Rebound Tester, Model CS-111—has been developed by Custom Scientific Instruments. The apparatus is used to determine the resilience of flexible urethane foam and other materials. It consists of an 18-in. vertical clear plastic tube into which a 16.3-gm. steel ball is released by an electromagnet. The ball falls through the tube onto a flexible foam specimen, and its rebound height is recorded visually with the aid of spaced-apart circles scribed on the clear tube. The height of rebound, as a percentage of actual drop height, is the material's ball-drop resilience. *Custom Scientific Instruments, Inc., Kearny, N.J.*

Square spiral-tube winder

Available in two models is a new Knowlton machine that will produce square or rectangular spiral-wound tubes in automatic operation. Called Squarwind, the device makes



tubes with right-angled inside corners. It reportedly will handle any two-to-seven-ply material that has the proper flexibility and forming characteristics. Winding mandrels are made to specification for each type and size of tube required. The Model 1 has a rated production capacity of 15 to 20 lineal ft. per minute; Model 2 has a rated production capacity of 20 to 25 lineal ft. per minute. *M. D. Knowlton Co., 28 Industrial St., Rochester 14.*

Roll-feed web splicer

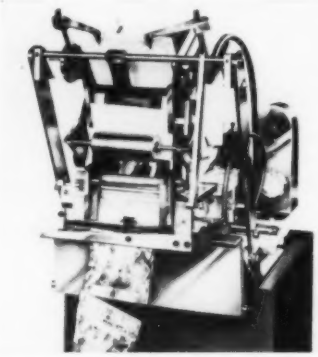
Its new, moderately priced web splicer Model MS625 will splice cellophane, foil or paper in registration within 0.10 in., says Witherby Sales. Automatically uniting the leading edge of a new roll of web to the trailing edge of a depleting roll, the electromechanical unit eliminates down time caused by roll changes. It accommodates webs ranging in width from 1½ to 6¼ in. at speeds up to 400 lineal ft. per minute, according to the supplier. *E. T. Witherby Sales Co., Framingham, Mass.*

41-in. side-weld bag maker

A new side-weld 41-in. polyethylene-bag machine is being offered by Schjeldahl. The new bag-making machine is of split-roll design. This assembly, reports the supplier, permits simultaneous bag production from two separate rolls of printed polyethylene tubing or sheeting. *G. T. Schjeldahl Co., Northfield, Minn.*

Bag ejector on label-sealing machine

Mercury Heat Sealing's Model VLS-12 automatic label-feeding and sealing machine now is available with a new automatic bag ejector. In operation, the bag-ejector device automatically releases the filled and sealed package onto a conveyor or accumulating table. The label-sealing unit feeds, folds and seals saddle labels up to 10½ in. wide, and is available with hole punch, date coder and an automatic price imprinter. According to the supplier, the new bag ejector affords efficiency and economy in packaging. *Mercury Heat Sealing Equipment Co., 2601-21 N. Howard St., Philadelphia 33.*



Automatic imprinting of tape cores

Van Buskirk's new tape-core marking machine automatically marks the inside wall of cut-to-width paperboard cores with a code/date number, trademark or other identification information. Operating at a rated speed of 75 imprints per minute, the new unit (available in five models) has an imprint width up to ½ in., and can accommodate core widths to 2 in. *Van Buskirk & Co., Bridgeport 5, Conn.*

New blow-molding machine available

F. J. Stokes reports that it has added a moderate-priced blow-molding machine to its line of automatic plastic-molding equipment. The supplier has concluded an agreement with Zimmerman Machine Co. to assume production and marketing of the latter's manifold-type blow-molding equipment. It will be offered free of any royalty requirements. *F. J. Stokes Corp., 5500 Tabor Rd., Philadelphia 40.*

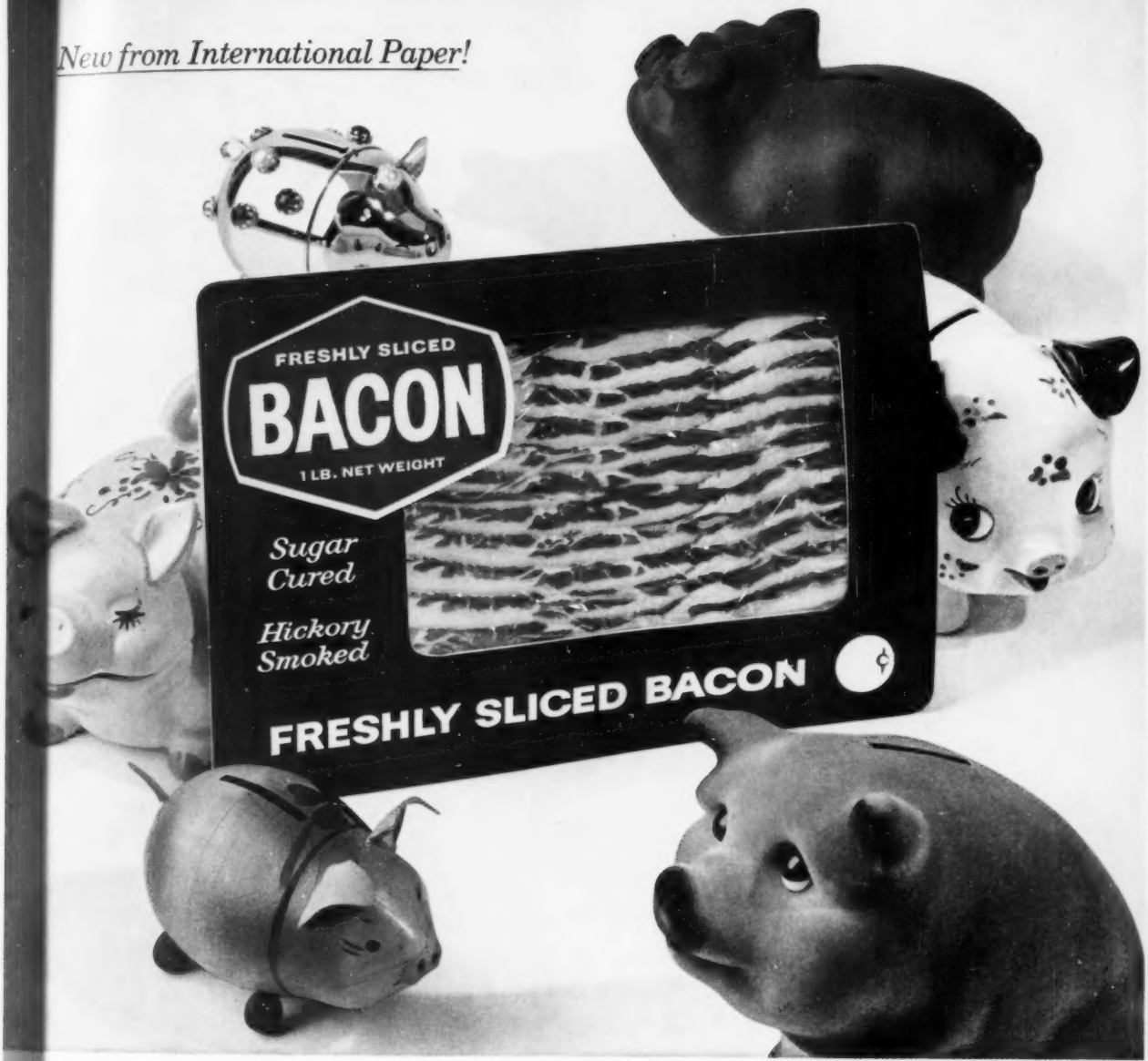
Aerosol-valve decrimper and remover

Aerosol-can rejects can be turned into salable merchandise with its new aerosol-valve decrimper and remover, says Robins Engineering. Installed on an existing aerosol production line, the unit automatically removes defective 1-in. cup valves from cans and disposes of them. The supplier offers a guarantee that its sanitary new attachment will not damage cans or contaminate their contents. *Robins Engineering Co., North Haven, Conn.*

Aluminum aerosol cans to be offered

An extruded aluminum can has been added to American Can's line of aerosol containers. The seamless container, in 6-oz. size, will become commercially available at the end of this year. Leading users of the supplier's new can are expected to be packagers of cosmetics, pharmaceuticals and

New from International Paper!



New grease-resistant **KREOCOAT** by International Paper is 5 ways better than laminated bleached board

(—and one of them is, it's cheaper!)

KREOCOAT is a dramatic new grease-resistant solid bleached board. It is already being used to package such products as frozen chicken, cookies, bacon and other meats, and brown 'n serve baked goods. Independent box makers, particularly, find this highly printable machine-coated board ideal for today's competitive conditions.

Here's why International Paper's Kreocoat is better than laminated board:

1. There's no curl. Kreocoat lies flat. Its coating is an *integral* part of the board. It can't delaminate—ever!

2. Less inventory. Kreocoat's *versatility* lets you cut your inventory. You no longer have to tie up dollars and costly warehouse space to stock both laminates and other boards.

3. Less handling. Kreocoat comes to you ready for converting. There is no laminating operation—and Kreocoat can be glued with conventional adhesives.

4. Easily salvaged. Because Kreocoat is made from 100% virgin wood fibre, it can be reclaimed right along with your other solid sulphate waste.

5. Lower cost. Kreocoat is not only cheaper to buy, it is also cheaper to store, cheaper to convert, cheaper to salvage.

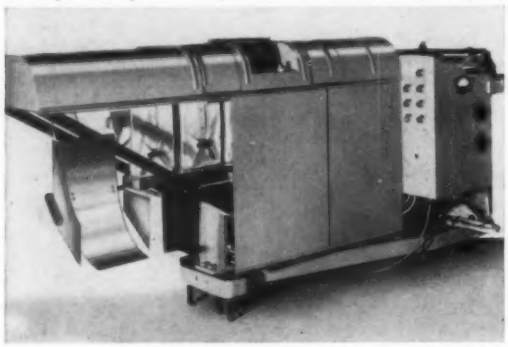
Contact your International Paper salesman for samples and information.

Fine Paper & Bleached Board Division **INTERNATIONAL PAPER** New York 17, N. Y.

dentifrices. The seamless can, says the company, is more attractive than cans with side seams, and also can be lithographed completely around its surface. The supplier reports that it has overcome the problem of adherence of interior coatings, which has been a problem in the development of aluminum containers. Although aluminum-can costs will be higher than for tinplate cans, users will realize savings in shipping costs because of their lighter weight, the company says. *Bradley-Sun Div., American Can Co., Hillside, N.J.*

All-purpose wrapping machine

An automatic wrapping machine that forms film bags from roll stock, holds them open for loading, closes them, seals the tops and ejects them, has been introduced by Stephen



Bodolay. The supplier cites savings in labor and in packaging material as advantages of its new machine, Model 34. It is designed for use in packaging a wide variety of products, including shirts, notions, hardware, textiles and produce. The unit forms bags ranging in size from 4 by 4 in. to 12 by 17 in. Production speeds up to 2,000 filled bags per hour are possible, the supplier says. *Stephen Bodolay, Inc., Springfield 8, Mass.*

Sealed extruded vinyl tubes

The Andrew M. Martin Co. is offering sealed extruded vinyl tubes, which will be shipped air filled to users' plants. This procedure, the supplier points out, assures clean, dust-free tube interiors and retention of tube shape during shipment. When cut across one end, the undeformed opening facilitates loading. The tubes, which are printable, are available in a variety of sizes, from 1 cc to 4 oz. They can withstand wet-steam sterilization up to 255 deg. F. Among the first commercial applications is their use for sterile gauze packing. *Andrew M. Martin Co., Ossining, N.Y.*

Versatile new packeting unit

Simultaneous forming, filling and sealing of up to seven packets per cycle and speeds up to 30,000 packets of various products per hour can be achieved on its new Model B Multiple Formapak, says Brown Filling Machine. The unit forms packets at high speed from a single roll of heat-sealing paper, film, foil or laminate. Weights can be varied and packet lengths adjusted from 1½ to 9 in. without changing parts, the supplier says. In addition, the unit can fill different kinds of powder in each packet simultaneously. Packets can come off the machine individually, joined or in perforated strips. An electric-eye control insures registration of printed material on both sides of the packets. *Brown Filling Machine Co., Div. Sundstrand Machine Tool Co., Fitchburg, Mass.*

New unwind and rewind stands

Elimination of material waste and down time during roll change in high-speed continuous roll-stock processing are the advantages cited by Stanford Engineering for its new turret-type unwind and rewind stands. Capable of handling rolls of packaging material from 18 to 72 in. in diameter, the units' operating speed is rated at 1,000 ft. per minute. In the Model TO-24 unwind, two rolls of stock are mounted on tandem shafts in a rotatable turret. As the end of the infeed roll is reached, the turret rotates and the second roll is instantaneously spliced to the moving web without pause in the process. The Model TO-24R rewind has a turret with dual wind-up shafts. When the desired cut-off point is reached, the turret's "flying-knife" action instantly attaches the moving web to the fresh core, so that the finished roll can be removed at leisure. *Stanford Engineering Co., Salem, Ill.*

Two-color rotogravure press

A new two-color Cerutti rotogravure press is designed specifically for in-line installation with the user's own processing equipment. It is a customized 32-in. version of the Cerutti Model 32-R. The press features pneumatic impression controls independently adjustable at either or both sides of the printing units, a surface rewind with flying splice and electronically controlled drum driven independently of the press, and electronic infeed tension control. Details are available from the distributor. *Parsons & Whittemore Graphic Corp., 250 Park Ave., New York 17.*

Automatic lidding of set-up boxes

The new Beck set-up lidder is an automatic machine for closing filled or empty set-up boxes at high speeds. The supplier claims that automated box lidding with the machine will reduce production-line costs for makers and users of set-up boxes. The new unit, which is reported to afford quick change-over, can accommodate boxes ranging in size from 1¼ by 1¼ by ¼ in. to 22 by 14½ by 4½ in. *Charles Beck Machine Corp., King of Prussia, Pa.*

'Piggy-back' food container

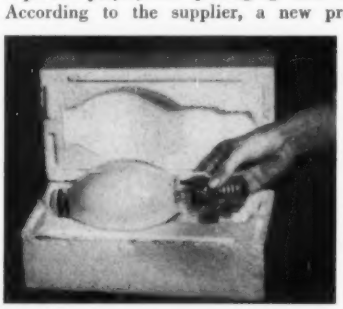
American Can has developed a "Piggy-Back-Pak" container designed for use in the packaging of related food items. It consists of a string-opening metal-end fibre can and a metal can with a special base that snaps into the recessed top of the fibre can. The new dual container permits the packaging of any combination of a dry product with a liquid product. Diameter of the container is 2⅛ in. Its length is 9¾ in. Details are available from *American Can Co., 100 Park Ave., New York 17.*

Removable adhesive for difficult surfaces

Kleen-Grip, an adhesive that reportedly will adhere to plastics, metals and other surfaces where other adhesives may not hold, has been introduced by Adhesive Products. Labels treated with the adhesive backing, says the company, will stay on polyethylene, polystyrene, acetate or steel surfaces, yet can be peeled off easily, simultaneously stripping off the adhesive. The material is said to be waterproof and permanently flexible. *Adhesive Products Corp., 1660 Boone Ave., New York 60.*

Packaging in expanded polystyrene

Cellulite is the name given by Gilman Bros. to its new expanded-polystyrene packaging and insulation material. According to the supplier, a new production process—utilizing controlled conditions of heat and pressure—permits the production of any size and shape of the rigid foamed plastic. Billets 9 ft. long by 4 ft. wide by 6 in. thick can be manufactured, or small units shaped to any specified form can be molded to serve the packaging requirements of producers of delicate or fragile instruments, says the company. Shown is a foam package for shockproof shipping of a mercury vapor



This is how your customer sees LATEX COATED boxboard

In her mind's eye she sees your product in the serving dish and on the table. She'll like what she sees if you show her the finest representation of your product. But only the finest printing surface can do the job. Turn the page and you'll know why latex-coated boxboard whets the appetite — and rings the register.

DOW

LATEX COATED BOXBOARD . . . a superior printing surface makes a better selling surface

LATEX COATED

It's a lot of little things that latex coatings do for package surfaces—but they add up to one big sales advantage: the finest possible representation of your product.

The front of this insert, printed on .010 pt. latex coated boxboard, demonstrates these benefits. An improved gloss, for example, that keeps packages fresh looking longer. Note the brilliance and sharp detail of full color printing.

If you coat or manufacture boxboard you'll appreciate the versatility, heavier coating weights, or higher machine speeds and shorter drying time possible with latex. Whether you're a paper man, a packaging man or a product man, you'll want to find out more about latex coated boxboard. Write today to THE DOW CHEMICAL COMPANY, Midland, Mich., Coatings Sales Dept. 2323CR.

DOW

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

amp. Such containers are molded in halves to conform to product shape. The halves are grooved for locking, to give protection against moisture, dirt and air. Other cited advantages of the packaging material are: light weight, strength, ease of packing (the foam "block" can be banded, labeled and shipped) and imperviousness to moisture. *The Gilman Bros. Co., Gilman, Conn.*

Tinted polyethylene dip tubes

Anchor Plastics is introducing tinted polyethylene dip tubes for use in transparent glass aerosol bottles, glass dispensing bottles and plastic squeeze bottles in which colored liquids (such as perfumes or toilet waters) are packaged. The crack-resistant dip tubes can be tinted a variety of colors, thereby becoming almost invisible in the package, the company says. The idea is to present a more pleasing package appearance, which, the supplier points out, is a requirement in merchandising cosmetic or toiletry products. The Aeroflex-P tubes are made to customer specifications in any diameter and wall thickness. *Anchor Plastics Co., 36-36 36th St., Long Island City 6.*

Dispenser for heavy-duty tapes

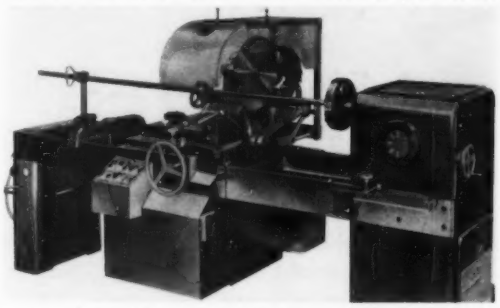
Derby Sealers' new Model 152-T tape dispenser delivers predetermined lengths of tape up to 30 in. and in widths up to 3 in. Designed for use with reinforced and kraft tapes, the low-cost device also is equipped with a snap-out double-edge knife blade, patented pivoted blade action and a hammer-type cutting mechanism. Optional is a tape straightener attachment for use with reinforced tapes. *Derby Sealers, Inc., Derby, Conn.*

Improved padded shipping bag

Columbian Rope reports that improvements have been made in its recently acquired "Jet-Pak" insulated paper bag. The protective batten (made of macerated newspaper) is placed between two papers bound together with asphalt. The asphalt holds the padding in position for control over cushioning. *Columbian Rope Co., Auburn, N.Y.*

Automatic single-knife slitter

New from Lever Mfg. is an automatic single-knife slitting machine that is claimed to provide full slitting automation for the first time. Called the Lev-Air-Matic 500, the device



operates by pushbutton after loading. The company says that big savings in material can be effected because of the machine's efficiency of operation. Further details are available from *Lever Mfg. Co., 120 W. 31 St., New York.*

Cushioning protected against germs

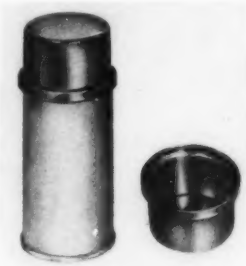
Germ-free protection, Sanitized bacteriostat, has been added to its Paratex curled-hair cushion-packaging material, reports Blocksom. According to the company, the chemical additive inhibits bacteria, mold, mildew and fungus growth to protect products during shipment. The protection is reported to be permanent and to eliminate cushioning failure in hot, humid climates. The treated material is tinted green to identify it and to suggest protection against bacteria. *Blocksom & Co., Michigan City, Ind.*

Liquid filler for toiletries

Multi-fill Machine reports the availability of a new filling machine for use by packagers of pharmaceuticals and toiletries. It is claimed to fill liquid or semi-liquid products into small containers of varying sizes and shapes at a high rate of speed. *Multi-fill Machine Co., Toledo 7, O.*

Polyethylene stack caps for aerosols

Unbreakable plastic stack caps, designed specifically for 202 aerosol cans (both valve and nozzle type), are being offered to packagers by Gilbert Plastics. The lustrous closures are molded of high-density polyethylene and are available from stock in red, yellow, black or white. Other colors can be matched to customer specification. According to the supplier, the new caps snap on firmly, come off easily and provide maximum protection to the spray nozzle. The flat-top closures permit stacking of aerosol containers, for space savings in storage, shipping or on dealers' shelves. They are claimed to be lower in price than competitive caps. *Gilbert Plastics, Inc., Kenilworth, N.J.*



New supplier of presses

Topflight Corp. has granted New Era Mfg. exclusive sales-representation rights in the U.S. for the former's line of four-color tape and label printing presses. Among the equipment are rotary presses with interchangeable cylinders that permit a choice of plate-cylinder circumferences ranging from eight to 24 in. Web widths up to seven in. can be run. The four-color press also die cuts pressure-sensitive and heat-seal materials, film, paper, foil, fabric and other materials. *New Era Mfg. Co., Hawthorne, N.J.*

Versatile new testing device

A testing machine capable of making more than 15 different tests is available from Testing Machines. The unit can make physical tests for research or quality control on plastics, paperboard, fibreboard and other packaging materials. Among the standard tests it will perform are: compression, flexure, hardness, tensile, puncture, shear, nail and screw withdrawal, internal bond, ring crush and ply adhesion. *Testing Machines, Inc., Mineola, N.Y.*

Fire-retardant packaging material

A packaging material and vapor barrier with fire-retardant properties is offered by American Sisalkraft. Called Pyro-Kure, it consists of foil and kraft paper bonded with a flame-extinguishing adhesive and reinforced with Fiberglas strands. According to the supplier, when the temperature surrounding this packaging material reaches the combustion stage, gases are released which smother the flame. *American Sisalkraft Corp., Attleboro, Mass.*

Imported vinyl film offered

Transparent vinyl film, produced abroad in both extruded and calendered form, is being offered by Robeco Chemicals. The extruded film is available in 54-in. width and thicknesses from ½ mil to 4 mils. Calendered film, in the same width, is available in thicknesses from 1.2 mils to 20 mils. *Robeco Chemicals, Inc., 25 E. 26 St., New York 10.*

'Invisible' carton-marking ink

An invisible ink for marking corrugated board and other porous surfaces is available from the Ultra-Violet Products. Designed for use in coding cartons, the non-flammable, non-toxic ink is invisible under normal lighting conditions, but shines bright blue under long-wave ultra-violet light. *Ultra-Violet Products, Inc., San Gabriel, Calif.*

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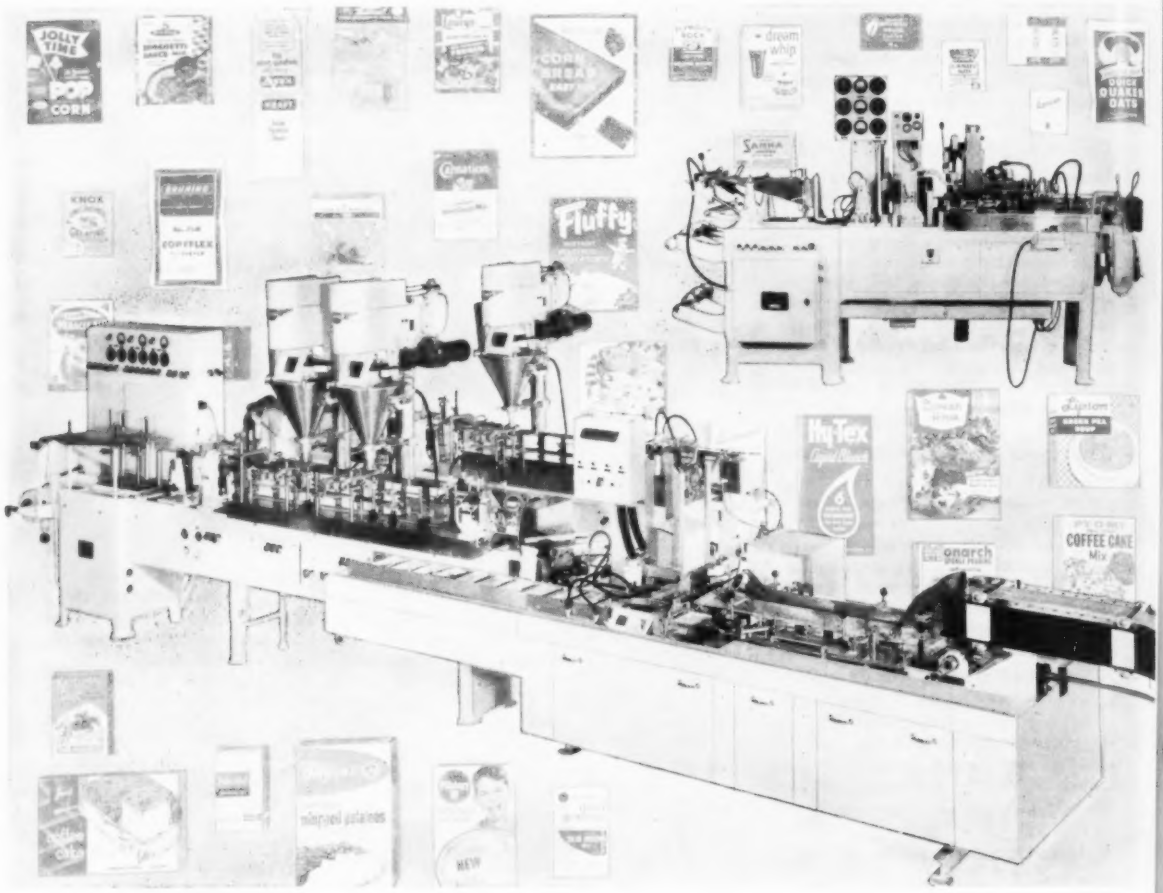

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For Your Information

Fred N. Dundas of Dominion Glass Co. is the newly elected pres. of **Glass Container Mfrs. Institute. J. S. Heuisler** of Maryland Glass Corp. becomes first v.p., and **C. G. Bensinger** of Owens-Illinois becomes second v.p. Elected to fill four vacancies in GCMI's board of trustees were: **G. F. Collins, Jr.**, of Liberty Glass Co.; **James G. Ferguson** of Laurens Glass Works; **J. Gordon King** of Hazel-Atlas, and **E. M. Terner** of Metro Glass Co.

Dundas

Negotiations for a merger of the **Society of Packaging & Handling Engineers** and the **American Material Handling Society** have been broken off. The proposed merger was abandoned by mutual consent after nearly a year of discussion.

New pres. of the **National Fibre Can & Tube Assn.** is **George R. Browner** of Mead Board Sales. He was elected during the group's 26th annual meeting in Old Point Comfort, Va. **W. F. J. Fienup** of R. C. Can Co. was elected v.p.

Paul S. Hanway, managing director of NFCTA, reported at the meeting that the industry's monthly volume of production reached an all-time high in March, and was 19% higher than production in March, 1958. He noted also that the baking industry alone now uses more fibre cans and tubes than were produced by the entire supplying industry 20 years ago.

Designed as a guide for packaging draftsmen or designers is a new book that explains the fundamental engineering principles that are essential in providing package protection. Titled "Package Design Engineering," it was written by **Kenneth Brown**, member of the technical staff of Space Technology Laboratories and an instructor at UCLA. The comprehensive 263-page book is another in the publisher's "Materials Handling and Packaging Series." It is profusely illustrated with photos, charts and diagrams. Copies, at $8.50, can be obtained from the publisher, John Wiley & Sons, Inc., 440 Fourth Ave., New York 16.

Russell C. Weigel of E. I. du Pont de Nemours has been elected to a two-year term as pres. and director of **The Society of the Plastics Industry, Inc. Robert L. Davidson** of Kurz-Kasch becomes v.p. and a director. Retiring SPI pres. **C. Russell Mahaney** of St. Regis Paper Co. has been elected board chairman. He also becomes a director.

The **National Flexible Packaging Assn.** and **Michigan State University** last month co-sponsored a Flexible Packaging Symposium at Lansing, Mich. Topics covered at the three-day meeting included marketing problems of major industries as related to packaging financial ratios, marketing of old and new products, and using package design to sell converted products.

NFPA reports also that it has formed a Manufacturing Management Committee, headed by **M. E. Horton** of the Dobeckmun Co. Purpose of the committee, according to the association, is to improve liaison between sales and production personnel and to stress profit building by maximum use of manpower, machines and materials.

"Organizing & Controlling Packaging Operations" was the theme of **American Management Assn.'s** Packaging Seminar in Montreal, June 8-10. Included in the seminar were panel discussions on packaging materials and packaging methods, as well as five presentations on various phases of packaging. Co-chairmen of the three-day session were **W. L. Newman, Sr.**, of General Electric and **C. E. Hammond** of Ethicon, Inc.

Ungemach

Wallace Ungemach of Wallace Paper Box Corp. was elected pres. of the **National Paper Box Mfrs. Assn.** at its recent 41st annual convention in Philadelphia. **Bill Price** of Carolina Paper Box Co. was named v.p. Mr. Ungemach, who has previously served two years as v.p. of the association, has been in the box business for about 40 years.

"Checking Prepackaged Commodities" is Handbook 67 in the series prepared by the **National Bureau of Standards, U.S. Dept. of Commerce.** The 27-page booklet, designed primarily as a guide for weights-and-measures officials, also can be used by personnel involved in packing, distributing and retailing prepacked goods. It includes data on equipment, techniques, action and reporting, as well as a six-page table for computing total selling prices based on extensions of stipulated unit prices. Copies of the pocket-sized booklet are available, at 35 cents, from the U. S. Govt. Printing Office, Washington 25, D.C.

New officers have been elected by the **Volatile Inhibitor Mfrs. Assn.** They are: pres.—**Everett D. Cookson** of Ludlow Papers; v.p.—**Edgar L. Orchard** of Orchard Paper Co., and **Walter A. Spencer** of Daubert Chemical Co.

The 45th Midyear Meeting of the **Chemical Specialties Mfrs. Assn.** was held in Chicago May 18-20. Technical sessions were conducted by CSMA's six divisions: Aerosol; Automotive; Disinfectant and Sanitizers; Insecticides; Soap, Detergents and Sanitary Chemical Products, and Waxes and Floor Finishes. Speakers at the three-day meeting included **William C. Stolk** of American Can Co. and **James Q. du Pont** of E. I. du Pont de Nemours & Co.

The **American Management Assn.** begins its fifth annual "summer school" for business executives July 6 at Colgate University, Hamilton, N.Y. The eight weeks of sessions will include 70 programs, to be participated in by 1,500 executives from all parts of the U.S. One seminar will be devoted to packaging, highlighted by a discussion of applications of foils in packaging today.

Britain's sixth **International Packaging Exhibition,** to be held Sept. 8-18 in London, reportedly will be the biggest in the series, both in size and in international representation. About 300 packaging-supply companies are expected to have exhibits. Included in the total are exhibits from firms representing 12 countries other than England.

A 224-page "Catalog and Register of Testing Machines" is available from **Testing Machines, Inc.** The reference manual describes various categories of physical testing areas and lists the machinery available for each. Copies may be obtained, without charge, by writing the company, whose address is 72 Jericho Turnpike, Mineola, N.Y.

Raymond J. Vonesh has been appointed exec. secy. of the **Rubber & Plastic Adhesive & Sealant Mfrs. Council.** The organization also has moved its headquarters from Newark to Chicago.

Plans are under way for **Interpack 1960,** the German packaging exhibition, which will be held next April 20-27 in Dusseldorf. Its sponsors report that next year's

Events

July 23-24—**Western Wooden Box Assn. (The Wooden Box Institute),** joint session meeting, Multnomah Hotel, Portland, Ore.

July 27-31—**American Management Assn.,** packaging seminar ("Current Applications of Foils in the Field of Packaging"), Colgate University, Hamilton, N. Y.

Aug. 17-21—**American Management Assn.,** packaging seminar ("Costs and Controls"), Colgate University, Hamilton, N. Y.

Aug. 17-21—**Technical Assn. of the Pulp & Paper Industry,** 10th testing conference, Multnomah Hotel, Portland, Ore.

Aug. 23-26—**National Assn. for the Specialty Food Trade,** fifth annual national fancy food and confection show, Hotel Astor, New York City.

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A labelled filter cartridge in less than 1¼ seconds . . . up to 3,000 an hour! At Carter Carburetor Division of ACF Industries, Inc., that's the eye-blinking production clip for applying labels of printed "SCOTCH" Brand Polyester Film Tape No. 850 to their new in-the-line gasoline filter.

This custom-built machine (a modified S-603 "SCOTCH" Brand Pad Applicator) does the job . . . automatically tabbing and rolling the silver, red, and black tape-labels to the cartridges passing on the conveyor. The result: an attractive, eye-catching label that holds its message indefinitely; resists weathering, road film, engine heat.

What do you label? Chances are, "3M-MATIC" Taping and Dispensing methods can open up new possibilities for you to speed your production, save on costs, and get more attractive packages with tape. 3M Representatives will be glad to search out such possibilities for you. Ask your local "SCOTCH" Brand Tape Distributor for more information, or write: 3M Co., St. Paul 6, Minn., Dept. IAJ-79.

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F.Y.I. *(continued)*

show will be evenly balanced between exhibits of packaging machinery and packaging materials and supplies. The purpose is to make Interpack a comprehensive packaging show.

General Motors Corp. conducted a "Packaging Round-up" in Detroit on May 6-7 for some 350 GM packaging personnel from all over the world. On display were new, cost-saving packages and packaging equipment used by 30 GM divisions. Purpose of the two-day conference and exhibit was to acquaint the company's packaging executives with the increasing variety of packages and packaging techniques available to them.

New chairman of the **Citrus Container Institute** is **O. C. Bateman** of Inland Container Corp. The institute is a nonprofit organization whose purpose is to improve the methods of shipping citrus fruits and to develop standard specifications and test procedures.

An expanded program of graduate study in the field of forest products, providing paid research fellowships and assistantships to candidates for master of science and Ph. D. degrees, will be offered at the University of Wisconsin during the academic year that begins in September. Opportunities for study and research will be open in six general areas of forest-products research, including packaging and pulp and paper. Further details are available from Prof. Neill, 3218 Chemical Engineering Bldg., University of Wisconsin, Madison, Wis.

The Specialties Div., Chicago Testing Laboratory, has been renamed **Chicago Paper Testing Laboratory.** The laboratory is equipped for commercial testing, consulting and research. Its new director is **Dr. Marvin C. Rogers,** consultant to the graphic-arts industries. He succeeds **Arthur C. Dreshfield,** who has resigned.

The third edition of "Films About the Canning Industry" has been published by the Information Div. of **National Canners Assn.** The 40-page booklet contains 63 listings. Data for each include the film title and its technical specifications, name of the sponsor, brief description of its contents, type of audience for which the film is most suitable and to whom requests should be addressed.

"Industry Teamwork = Company Progress" was the theme of the 54th annual convention of the **Lithographers & Printers National Assn.,** held April 13-15 at The Greenbrier, White Sulphur Springs, W. Va. The convention program emphasized methods by which industry teamwork can help plant management improve its day-to-day operations as well as its long-range planning.

Now available from the **Ohio Agricultural Experiment Station** is a 17-page survey report titled "Consumer Preference Toward Various Milk Containers in Eight Ohio Markets." It was written by **Glen H. Mitchell,** asst. professor in the Dept. of Agricultural Economics and Rural Sociology at Ohio State University. The report compares consumer preferences, under varying circumstances, between paper (one- and two-quart) and glass (one-, two- and four-quart) milk containers. Copies of the report may be obtained, without charge, by writing to: Mailing Room, Ohio Agricultural Experiment Station, Wooster, O.

The **National Bureau of Standards** this year marks the 50th anniversary of its paper-research operations. The bureau points out that its emphasis in paper research has shifted from developing test methods to providing basic information on the properties of cellulose and other polymeric substances, with the aim of improving paper's performance, mechanical and optical qualities. Studies also are being conducted to develop standard reference materials which can be used in calibrating commercial testing instruments.

The **National Wooden Box Assn.** reports the availability of a new color-sound 16mm motion picture titled "Reusable Wooden Containers." Theme of the 20-min. film is the reduction of production and distribution costs with materials-handling systems using re-usable wooden containers. The motion picture may be obtained for free booking by contacting NWBA at the Barr Bldg., Washington 25, D.C.

To date, 122 exhibitors have purchased space at the 1959 **Canadian National Packaging Exposition,** reports its sponsor, the **Packaging Assn. of Canada.** Approximately 155 companies are expected to occupy the 60,000 sq. ft. of exhibit space at Toronto's Automotive Bldg. in the Exhibition Grounds where the show will be held Nov. 3-5. Last year, some 14,200 visitors from Canada and the U.S. attended the annual event. As in the past, packaging materials, machinery and services will be highlighted at this year's exhibition.

Improved drum specifications for dangerous articles and for non-regulatory liquids were presented and approved at the annual meeting of the **Fibre Drum Mfrs. Assn.** The meeting, at which industry trends and technical subjects were discussed, was held May 14-15 at New York's Waldorf-Astoria Hotel. Re-elected for second terms by FDMA were: pres.—**H. M. Walter,** Continental Can, and v.p.—**W. D. Cox, Sr.,** of Fibre Drum Co., Chicago. The group will hold its next meeting Oct. 22-23 in Chicago.

The **Aircraft Industries Assn.** has named **Eugene McDermott** as chairman of its Preservation & Packaging Committee. The purpose of this committee—which numbers 154 companies in its membership—is to review Government packaging specifications before they are released to industry. Mr. McDermott is supervisor of packaging and packing in General Electric Co.'s Heavy Military Electronics Dept. He has been with the company since 1943.

U.S.I. POLYETHYLENE NEWS

A series for plastics and packaging executives by the makers of PETROTHENE® polyethylene resins

Packaging Notes

New research study on packaging has been issued by the American Management Association in book form. The book offers a comprehensive inventory of literature on packaging research. Current trends in packaging research, materials and methods are described. The book also lists principal sources of packaging information, such as periodicals, directories and manuals. The study includes a survey of packaging research needs and the special requirements of particular industry groups. The book is available for $6.00 from the AMA., 1515 Broadway, New York 36, N. Y.

Polyethylene bags for heavy transformers are saving an electrical equipment manufacturer $33,000 annually in packaging material costs. The company is shipping transformers ranging in weight from 300 to 1800 pounds in gusseted, 4-mil polyethylene tubing bags.

The transformers are readied for shipment by mounting them on prefabricated wooden skids, placing pieces of single-wall corrugated over the tops to protect the finish. The polyethylene bags are then placed over the transformers.

Previously, the company shipped its transformers in heavy paper covers and wooden crates. The new bags have resulted in substantial savings in labor costs and shipping weight. Hidden damage during shipment has also been reduced.

New machine does four color printing on plastic bottles. The machine accommodates one to four colors, does its printing by offset. The machine operates without mandrels, uses compressed air to print the plastic bottles. The unit employs two large conveyors and twin chains holding 14 bottles on slides.

Expanding carton with polyethylene liner is being tested by the Army as a means of serving hot rations to troops in the field. The carton, which holds dehydrated rations, has uncut, pleated top flaps which increase the carton's volume by a third when open. A polyethylene liner is unfolded and placed in the carton, hot water is poured into the liner and the dehydrated rations are placed in the liner and reconstituted. The increased size of the opened carton easily holds the extra volume of the reconstituted rations. The liner and carton form a leakproof mixing and serving container.

The new carton is expected to have civilian retail applications for powdered food products requiring the addition of liquid. These might include such mix-and-serve products as fruit drinks, milk, cocoa, gelatin desserts, pudding, hot cereals and instant coffee.

U.S.I. Offers New Literature For Polyethylene Processors, Packagers

Data on Film, Pipe, Molded Housewares, New Commercial Standards

Valuable information on polyethylene processing and packaging is now available from U.S.I. in the form of free booklets, processing tips and reference data. The information is based upon U.S.I.'s extensive polyethylene research conducted at the company's Polymer Research Laboratory in Tuscola, Ill. and from industry-wide marketing and packaging studies.

Among the literature offered is:

PETROTHENE ***Polyethylene — A Processing Guide*** — A 96-page booklet discussing

technique for processing polyethylene, processing problems, and polyethylene properties.

Formulas and Tables for Polyethylene Film and Bags for determining such factors as feet of film of various gauges from a given quantity of resin; weight per 1,000 feet of film, or number of bags of a given size that can be made from a quantity of polyethylene film. The tables are particularly useful to film extruders and those who make or use polyethylene film bags.

Slide rules with the same type information are also available.

Which Polyethylene Film Should I Use, which relates to the new Recommended Commercial Standard for Polyethylene Film (TS-5438) and indexes the various types and gauges of polyethylene film recommended for different packaging jobs. The corresponding PETROTHENE resins for each type film are also listed for easy reference by extruders.

Other literature offered includes a booklet on polyethylene pipe standards, "How to Choose and Use Polyethylene Plastic Pipe," "The Goose That Laid The Golden Egg," U.S.I.'s famous guide for buying polyethylene housewares; a complete collection of the well-known "Processing Tips" which U.S.I. has published regularly in leading plastics publications; and the booklet "Polyethylene Creates New Opportunities in Packaging."

To order any of this material, write to Editor, U.S.I. Polyethylene News, U. S. Industrial Chemicals Co., 99 Park Avenue, New York 16, N. Y.

Poly-Coated Pipe Resists Underground Corrosion

The first steel pipe in the industry to be coated with an extruded plastic is finding widespread use by gas, oil and chemical companies with underground pipeline installations.

The pipe is factory coated with extruded polyethylene applied over an elastic adhesive undercoating. The coating has high insulation resistance and dielectric strength. This is especially important in underground pipelines where stray ground currents are a troublesome cause of pipe corrosion. The plastic coating is so tough and resilient that rocks can be bounced off the pipe without piercing the coating. The pipe can be bent in the field without damage to the coating.

Polyethylene Film "Bubble" Speeds Construction Work

A "warm air bubble" of polyethylene film inflated over excavation site thaws the area sufficiently for concrete to be poured even in subfreezing winter weather.

This novel application of polyethylene film has been used successfully by several construction companies. In one operation a 50 x 64 foot sheet of film was anchored to the ground with cement building blocks and inflated with warm air from the blower of a temporary furnace. About two pounds per square inch pressure was used. Concrete was then poured in temperatures that ranged down to zero. The bubble was left up for three days to give the concrete time to cure without freezing.

New U.S.I. Plant Reaches Full Output In 6 Weeks

U.S.I.'s new 75 million pound polyethylene plant at Houston, Texas, reached capacity production just six weeks after going on stream.

Production reports show that quality of the material produced is high. A sizeable proportion of the output to date has been film grade and coating resins. Plans are already underway to double the capacity of the Houston plant by the third quarter of 1960.

2-mil cast polyethylene film made from PETROTHENE 239-27 resin has unprecedented clarity and gloss.

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CAST POLY FILM PACKAGES IT BETTER...FOR LESS!

In a single year, cast polyethylene film has become a major packaging material. Frozen food, produce, bread, hosiery, sheets, towels, paper plates...even tortillas and tamales are now packaged in clear, tough cast poly film. Here's why cast film offers you a better packaging material for your money:

CRYSTAL CLARITY—Cast poly film has an appearance equal to or better than that of other commonly used transparent packaging films. What's more, it has a soft, natural flexibility that adds a look of quality to packaged goods.

SUPERIOR PACKAGING PROPERTIES—Cast film has good impact and tear strength, high grease resistance and is an excellent moisture barrier. It heat seals well and is easily printed. Cast film handles well in overwrap machinery designed for conventional polyethylene film.

ECONOMY—You pay less for cast film than for other high transparent packaging materials—whether you figure cost per pound or per unit area of film. It is the most inexpensive high-clarity overwrap material you can buy.

Cast polyethylene film is made by a special process employing U.S.I. PETROTHENE® resins. Production of cast film by extruders has expanded rapidly since the process was introduced by U.S.I. last year. Facilities are now available to meet rapidly growing demand. Ask your film supplier about the special advantages of cast film for your packaging needs.

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U. S. Patents Digest

This digest includes each month the more important patents of interest to packagers. Copies of patents are available from the U. S. Patent Office, Washington, D. C., at 25 cents each in currency, money order or certified check. Postage stamps are not accepted. Edited by H. A. Levey.

Apparatus for Making Plastic Bags, Robert J. Burg (to Flexicraft Industries, New York). U.S. 2,867,156, Jan. 6. In an apparatus for making bags from thermoplastic material, means for intermittently feeding a strip of flattened, tubular thermoplastic material.

Packaging Machine, Stanley Parkes, Horace B. Merriman and Robert D. Sansum (to Gerrard Industries Ltd., Brentford, England). U.S. 2,880,667, April 7. A packaging machine comprising a drum rotatable in one direction to feed a metal band around a package to form a loop.

Vacuum-Loss Indicator for Sealed Containers, Tsunetoshi Kobayashi, Tokyo, Japan. U.S. 2,880,691, April 7. An indicator showing the loss of vacuum from an evacuated envelope having an exterior wall and an interior wall, said wall having a transparent portion and a silvered opaque portion.

Filling Head for Container-Filling Machines, Rudolph Henry Breeback (to Crown Cork & Seal Co., Philadelphia, a corporation of New York). U.S. 2,880,762, April 7. In a filling head for carbonated liquids, a body element adapted to be secured to a reservoir for a body of the liquid and a body of gas.

Nail-Packaging Machine, Scott D. Warner (to United States Steel Corp., Pittsburgh, a corporation of New Jersey). U.S. 2,880,763, April 7. A packaging machine comprising a turntable, means supporting said turntable for rotation on a vertical axis, and a plurality of container-mounting assemblies uniformly arcuately spaced around said turntable and supported thereon.

Apparatus and Method for Filling Containers, Paul E. Luther, Oakland, Calif. U.S. 2,880,766, April 7. A liquid-filling apparatus comprising a valve body having a valve head adjacent the lower end thereof.

Display Boxes for Wrist Watches and Like Articles, Robert O. Persky, Brooklyn, N.Y. U.S. 2,880,858, April 7. A display box comprising a case open at the top and having a pair of opposite walls, a cover hinged to the case and a holder for a wrist watch or like banded article.

Receptacles Having Forced or Snapped-in Covers, Earl S. Tupper (to Tupper Corp., North Smithfield, R.I., a corporation of Delaware). U.S. 2,880,859, April 7. A plastic vessel and a cover therefor, adapted to serve as a display and shipping container for merchandise including powdered or flaked soap, liquids and the like, and to serve as a receptacle or pail in re-use.

Shipping Package for Paper, William J. Van Dyck (to Badger Paper Mills, Inc., Peshtigo, Wis., a corporation of Wisconsin). U.S. 2,880,866, April 7. A package comprising as its contents paper sheets measured in reams and disposed in a stack of indeterminate height but of standard cross section.

Expandable Diaphragm as a Cushion in Loose-Packed Bottles, Allen Bradford Foye (to W. R. Grace & Co., Cambridge, Mass., a corporation of Connecticut). U.S. 2,880,900, April 7. In a sealed container including a container element and a rigid closure element, said closure element including a top closure panel and a closure-retaining skirt.

Container, George Arlington Moore, New York. U.S. 2,880,924, April 7. A flat blank of foldable material adapted to be formed into a container having a substantially square cross section and a closed end.

Bag, Arthur P. Klasing and William J. Rice (to Central States Paper & Bag Co., St. Louis, a corporation of Missouri). U.S. 2,880,925, April 7. A bag consisting of two flat, substantially congruent sheets adapted—when said bag is closed—to lie in facewise contact.

Rotatable Dispensing Support for Beverage Containers, William H. Springer, Lancaster, Pa. U.S. 2,880,951, April 7. A serving and supporting stand for a beverage jug having a side spigot, said stand comprising a flat, horizontally disposed tray having upper and lower sides.

Metallic Foil Food-Packaging and Cooking Envelope, Florence O. Oritt, Philadelphia. U.S. 2,881,078, April 7. In a metallic foil food-packaging and cooking envelope containing a food element, a pair of confronting metallic-foil panels of rectangular shape adhesively secured together along their edges.

Packaging Method and Apparatus, Verris C. Wardell, Rockville Centre, N.Y. U.S. 2,881,574, April 14. The method of forming a plurality of individual bags from a single strip of bag material, comprising the steps of taking a generally rectangular strip of bag material and folding it into a U-shaped form having two ends separated by a given length.

Shipping and Display Carton, Carl E. Woeber and Raymond V. Woeber (to The Forsum Co., Springfield, Ohio). U.S. 2,881,914, April 14. In combination, an article-display and shipping carton and a plurality of cylindrical frangible containers arranged in a single row in said carton.

Strapping Seal and Package Therefor, Albert T. Koehler, Herbert Palmleaf and Melvin E. Ross (to A. J. Gerrard & Co., Melrose Park, Ill., a corporation of Illinois). U.S. 2,881,915, April 14. In a strapping seal for use in coil form in automatic sealing mechanisms, the combination of a body member formed from strip material having a pair of wing portions extending outwardly from the longitudinal edges of the body portion in diverging directions at substantially equal angles to the body portion.

Carton Closing and Sealing Apparatus, Leroy F. Carkhuff and Richard J. Fahey (to Diamond Gardner Corp., New York, a corporation of Delaware). U.S. 2,881,938, April 14. An apparatus for closing and sealing hinged-cover cartons, including a conveyor for continuously advancing a succession of such cartons past a closer mechanism which successively closes the covers of the cartons.

Foldable Carrier for Bottles and the Like, George J. Bosrock and Charles E. Hook (to Michigan Carton Co., Battle Creek, a corporation of Michigan). U.S. 2,881,946, April 14. A carrier-forming blank comprising one complete side-wall panel and two complete end-wall panels joined to vertical edges of one side wall.

Timed Dispensing Attachment for Receptacles, Alfredo Duchi, Mount Shasta, Calif. U.S. 2,881,951, April 14. A timed dispensing attachment for a receptacle having a dispensing opening in an upper wall portion thereof, comprising a housing provided with a dispensing spout.

Metered Dispensing Carton, Stan M. Silver, New York. U.S. 2,881,961, April 14. A metered dispensing container comprising a carton of substantially rectangular shape and including top and bottom walls and upright side and end walls, and partitioning means within said carton comprising a strip of material of the width of one of the said walls.

Reclosable Dispensing Carton, William A. Ringler (to Diamond Gardner Corp.). U.S. 2,881,967, April 14. In a reclosable dispensing carton, a tubular body and end closure at the opposite ends of said body, one of said end closures having a liftable cover part formed therein.

Collapsible Carton, William H. Inman (to Bloomer Bros. Co., Newark, N.Y., a corporation of New York). U.S. 2,881,968, April 14. A collapsible carton having a self-erecting bottom comprising a blank cut, scored and folded to form foldably connected front, side, rear and closure walls.

Inspection Cover and Bulge-Top Paper Box, Everett N. Upton (to Container Corp. of America, Chicago, a corporation of Delaware). U.S. 2,881,969, April 14. A box of relatively bendable paperboard panels including bottom and oppositely disposed side walls and opposite end walls, with a cover panel bendably connected to each of the side walls.

Carton, Howard N. Hovland (to American Can Co., New York, a corporation

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Patents *(continued)*

of New Jersey). U.S. 2,881,970, April 14. A tamperproof reclosable carton formed of a single flexible blank suitably cut and scored to provide a receptacle portion and a box-like lid hinged thereto.

Carrier for Containers, John E. Socke (to American Can Co., New York). U.S. 2,882,087, April 14. A carrier for a pair of juxtaposed rectangular containers having laterally extending peripheral ledges at their upper ends, comprising an elongated strip of flexible sheet material having an integral flat handle.

Machine for Packing Bags Into Containers, Maurice Welsman (to Modern Coffees, Inc., Boston, a corporation of Massachusetts). U.S. 2,882,658, April 21. A machine for packing articles into containers, comprising a horizontally disposed turntable provided with a plurality of circumferentially arranged storage compartments.

Heat-Sealing Packaging Machine, Samuel J. Campbell (to Food Machinery & Chemical Corp., San Jose, Calif., a corporation of Delaware). U.S. 2,882,662, April 21. Apparatus for wrapping articles, comprising conveyor means for advancing an article to be wrapped.

Underlap Forming Instrumentalities for Wrapping Machines, Cedric B. Cross (to Package Machinery Co., East Longmeadow, Mass., a corporation of Massachusetts). U.S. 2,882,665, April 21. In a wrapping machine, means for continuously advancing articles which are each partially encircled in a wrapper with one end of the wrapper lying against the bottom face of the article and the other trailing behind.

Box Setting-Up Machine, Allen H. Lloyd (to Tech-Art Inc., Milford, O., a corporation of Ohio). U.S. 2,882,803, April 21. A setting-up machine for a box blank that includes a bottom panel and side and end walls hingedly carried by the bottom panel.

Plastic Container, Robert H. Close (to Plastray Corp., Detroit, a corporation of Michigan). U.S. 2,882,947, April 21. A cover for an open-top receptacle, having a substantially flat top portion occupying the major area of the cover.

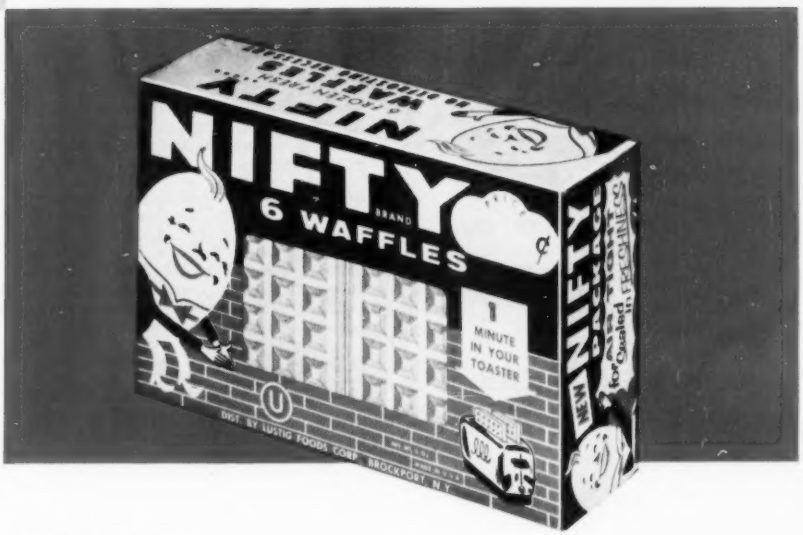
Packaging Covers for Coiled Sheet Material, Alvin A. Abramson (to Central States Paper & Bag Co., St. Louis, a corporation of Missouri). U.S. 2,883,045, April 21. A packaging cover for coiled sheet material, said cover comprising a core tube adapted for placement within the core of the coil.

Waterproof Carton for Icing Beverages, Lewis P. Weiner (to Pabst Brewing Co., Peoria Heights, Ill., a corporation of Delaware). U.S. 2,883,046, April 21. A beverage package comprising a carton with a waterproof liner, said carton having a rectangular bottom wall and pairs of opposite upright side and end walls provided with closure flaps hinged to their upper edges and folded inwardly.

Lamp Package, Earl B. Candell (to General Electric Co., a corporation of New York). U.S. 2,883,047, April 21. A hollow rectangular paperboard platform having opposed holes in the vertical side walls thereof for receiving and

COULD YOU SAVE...

the cost of overwrapping your food package?



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Patents *(continued)*

supporting articles, with said articles projecting laterally beyond said walls.

Apparatus for Handling Boxes, Wilber C. Belk and Hans W. Grotewold (to Food Machinery & Chemical Corp., San Jose, Calif., a corporation of Delaware). U.S. 2,883,078, April 21. A box-dumping device comprising a stack-elevating conveyor and a power-driven shaft rotatably mounted rearwardly of and adjacent to the upper end of said conveyor.

Multi-Partitioned Container, Hugh Horner and Jeremiah A. Lott (to Chas. Pfizer & Co., Brooklyn, a corporation of Delaware). U.S. 2,883,098, April 21. A structure for a multi-partitioned carton comprising a sheet of foldable material, said sheet including a pair of rectangular side panels joined by a rectangular end panel.

Scale for Bag-Filling Machines, Neil S. Stafford (to Food Machinery & Chemical Corp.). U.S. 2,883,140, April 21. In a scale, a horizontally disposed rod having downwardly directed recesses extending from the axis of said rod at opposite ends thereof.

Missing-Crown Detector for Bottle-Capping Machines, Marion W. Gieskieng, Denver. U.S. 2,883,810, April 28. A missing-crown detector for bottle-crowning machines of the type having a rotating turret supporting a circumferentially arranged plurality of heads in which crowns are positioned.

Method of Wrapping or Packaging Plastic Materials and a Machine Therefor, Carl Anton Ostern (to Norsk Spraengstofindustri A/S, Oslo, Norway). U.S. 2,883,811, April 28. A machine for packaging sticky materials, comprising rolls for rolling out the material into the form of a band.

Machine for Packing Articles into Carriers, William Pecky (to American Can Co., New York, a corporation of New Jersey). U.S. 2,883,812, April 28. A machine for packing articles into carriers, comprising in combination an assembly conveyor for advancing articles in a substantially continuous procession into an assembly station.

Container-Capping Apparatus, Robert A. Foresman, Jr., Philadelphia. U.S. 2,883,817, April 28. A container-capping apparatus comprising means for rotatably supporting the base portion of a container, means for rotating said base-supporting means and a container supported thereby.

Wrapping Machine, Thormod Jensen (to Pollock Paper Corp., Dallas, a corporation of Texas). U.S. 2,883,819, April 28. In a wrapping machine comprising a sealing table, spaced parallel side frame members and an opposed pair of separable plates adapted to be disposed in fixed, substantially vertical relationship between said frame members.

Method and Machine for Making a Drawstring Bag, Thomas E. Piazze (to Continental Can Co., New York, a corporation of New York). U.S. 2,883,913, April 28. A method of providing a bag section of flexible material with a drawstring closure in one end thereof.

Box Setting-Up Machine, Allen H. Lloyd (to Tech-Art Inc., Milford, O., a corporation of Ohio). U.S. 2,883,915, April 28. A machine for setting up a box blank that includes a bottom panel and integrally, hingedly connected opposed end walls, including an inner and an outer wall member.

Apparatus for Folding Box Blanks, Raymond A. Labombarde, Nashua, N.H. U.S. 2,883,916, April 28. In a paper box blank-folding machine, apparatus for overfolding opposite leading and trailing flaps toward each other and overfolding the triangular tabs in such flaps away from each other.

Machine for Printing Flexible Plastic Containers, Henry Milton Hayward, Eastwood, New South Wales, Australia. U.S. 2,883,928, April 28. Machine for printing flexible plastic containers, said machine consisting of an endless conveyor mounted on a horizontal table and having separate pallets pivotally mounted in uniform spaced relationship.

Can Bodymaker, Ronald Nordquist (to American Can Co., New York, a corporation of New Jersey). U.S. 2,883,956, April 28. In a machine for making can bodies, the combination of a hook forming station, a horn for supporting a partially formed can body at said station, and a combined shearing and edging means located adjacent said horn.

Shipping Box Structure with Internal Securing Means for the Box Contents, John G. Cadillac and Robert T. Cadillac (to Aacon Contracting Co., Brooklyn, a corporation of New York). U.S. 2,884,125, April 28. A package which comprises a crate and a crated object.

Benzene Hexachloride Packaging, Eugene D. Witman (to Columbia-Southern Chemical Corp., Allegheny County, Pa., a corporation of Delaware). U.S. 2,884,128, April 28. A benzene hexachloride package comprising a sealed paper bag containing finely divided benzene hexachloride having dispersed therein an epoxide in a minor concentration of at least 0.1% by weight effective to improve the life of the package.

Bottle Cap, Joseph B. Bidderman, Cincinati. U.S. 2,884,151, April 28. A one-piece cap of resilient deformable material for a container having an externally threaded neck and an open mouth and a transfer head spaced from the open mouth and below the threads.

Packaging Means for Butter and the Like, Frances H. Hanson, Oakland, Calif. U.S. 2,884,155, April 28. A butter package comprising two units, each including a plurality of separably connected dishes, each dish having side walls terminating in a surrounding shoulder which in turn terminates in a surrounding upstanding flange.

Anti-Spill Liquid Container, Omar F. Lampkin, Kansas City, Mo. U.S. 2,884,157, April 28. A container having an uppermost beaded edge provided with a semi-circular portion and a U-shaped portion defining a bight and legs.

Key for Opening Tear-Strip Containers, Edward O. Then (to American Can Co., New York, a corporation of New Jersey). U.S. 2,884,158, April 28. A key for removing a tear strip from a container, comprising an open loop of stiff wire terminating at its opposite ends in a pair of parallel juxtaposed shanks of different lengths disposed normal to and in the plane of said loop.

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EQUIPMENT • SUPPLIES • SERVICES

SELF-STICKING LABELS. Series of catalog file booklets describes, pictures and lists prices for self-sticking die-cut labels used for identification, sales promotion, instruction, coding and pricing. Paramount Paper Products Co. **(G-950)**

CONTAINER COMPRESSION TESTING MACHINES. 4-page illustrated brochure describes two stress-strain recording compression testers with maximum capacities of 5,000 and 10,000 lbs. Units are for large volume production testing and research laboratory programs. Testing Machines, Inc. **(G-951)**

CHAIN BAND SEALER. 4-page illustrated brochure describes two styles of band sealing machines. Units feature heavy duty carrier chain which relieves stresses from the top and thereby makes more positive closures possible. Doughboy Industries, Inc. **(G-952)**

SHORT CASE SEALERS. 4-page illustrated brochure describes automatic short case sealers available in over 100 different models. Machines handle cases up to 20 x 16 x 18 in.; or cases as small as 8 x 6 x 4 inches. A-B-C Packaging Machine Corp. **(G-953)**

BAG CLOSER. Illustrated 4-page brochure describes a machine that handles bags ranging from short consumer units to 100-lb. wall bags, at rates up to 20 per min. with two men. Bagpak Div., Int'l Paper. **(G-954)**

SWITCHES. 4-page catalog and price list describe basic snap action switches, enclosed snap action switches, foot switches, mercury switches and actuating switches. PIC Automation Controls Div., General Controls Co. **(G-955)**

AUTOMATIC BUNDLER. Illustrated catalog sheet describes a machine that can bundle up to 180 per min., with an arrangement of one dozen to the package. Adjusts to other bundling counts as well. Wraps with film, paper, foils. Battle Creek Packaging Machines, Inc. **(G-956)**

BENCH LABELER. 4-page illustrated brochure describes machines for labeling bottles, jars, boxes, etc., up to diameter or height of 5⅛ in. With automatic attachment, unit labels up to 60 per minute. Pneumatic Scale Corp., Ltd. **(G-957)**

CONTRACT PACKAGING SERVICE. Illustrated 4-page brochure describes this company's services for the packaging of liquids, powders and granular materials, creams, sprays, foams into jars, cans, tubes, etc. Includes aerosols. Old Empire, Inc. **(G-958)**

CELLULOSE WADDING. File folder with samples describes cellulose wadding available in wraps, blankets and cushions for the padding, wrapping and nesting of appliances, toys, statuary, cosmetics, optical goods, etc. Cel-Fibe Div. of Personal Products Corp. **(G-959)**

CHECKWEIGHERS. Illustrated data sheets describe a system for converging and checkweighing small cake mix cartons, a checkweigher with non-metallic conveyor extension for metal detector, a pie crust stick converger, etc. Hi-Speed Checkweigher Co., Inc. **(G-960)**

ALUMINUM CANS. 8-page catalog gives specifications for this company's standard drawn round aluminum cans available in 335 stock sizes ranging in diameter from 11/16 in. to 25 inches. American Aluminum Co. **(G-961)**

FLAT TOP CONVEYOR, BULK FEEDER. Illustrated data sheets describe a quiet, high-speed conveyor for cans, jars, bottles and small parts in a single line; also a screw-type bulk feeder, fully assembled and ready for mounting to the base of the hopper. M-H Standard Corp. **(G-962)**

VACUUM FILLING MACHINE. Illustrated data sheet describes a machine for the dustless vacuum filling of powders, free flowing and non-free flowing, into glass bottles, canisters, cans, plastic bottles and jars. Packaging Industries, Inc. **(G-964)**

GUMMED TAPE SEALER. Illustrated 4-page brochure describes an electric, push-button operated machine that selects the desired tape length, measures the tape automatically, moistens, cuts and delivers. Better Packages, Inc. **(G-964)**

VIBRATORY PACKAGE FILLING MACHINE. 4-page illustrated brochure describes a semi-automatic machine for filling bags and other containers with dry- and semi-dry free-flowing at speeds up to 60 per min. Also describes a double filler unit, etc. Stuyvesant Engineering Co. **(G-965)**

SKIN PACKAGING FILM. Literature describes, gives specifications, prices, and uses of this company's P.O.M.V. (Poly-on-"Mylar" Vacuumized). Also contains specifications, prices on other extrusion laminated poly-coated films. Print-A-Tube Co. **(G-966)**

VIAL FILLING MACHINES. Illustrated literature describes and gives prices for its line of machines for automatically filling free-flowing or semi-viscous liquids into plastic vials, glass or metal containers. National Instrument Co., Inc. **(G-967)**

CYLINDRICAL PRINTER. 4-page illustrated brochure describes equipment for the silk screen printing of glass and plastic models, metal tubes, fiber containers, and drums up to 55 gal. in size. Photo Process Screen Mfg. Co. **(G-968)**

CASING-TYING MACHINE. Illustrated 4-page brochure describes a one-man operated machine for applying first and second ties to all types of casings; and cellulose, fibrous, saran-type cloth bags and stockinettes. Vac-Tie Fasteners, Inc. **(G-969)**

VACUUM FORMERS. 8-page illustrated brochure describes this company's line of laboratory and production model vacuum formers for blister, contour, skin-formed packaging; 3-D letters, displays, toys, etc. Plast-O-Craft Co., Inc. **(G-970)**

BLISTER PACKAGING MACHINES. 4-page illustrated brochure describes a machine that seals any blister to a coated card at a rate of 150 packages per min.; also an automatic turn-table feeder and blister sealer; etc. Tronomatic Machine Mfg. Corp. **(G-971)**

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EQUIPMENT • SUPPLIES • SERVICES

CASING CLOSURE MACHINES. Illustrated data sheet describes a machine that applies aluminum clips as first and second ties on small artificial and natural casings and bags. Tipper Tie, Inc. (G-972)

PACKAGING EQUIPMENT. Illustrated 4-page brochure describes an automatic machine for forming flexible, 2-dimensional packages around a product from roll stock, heat sealing all four sides and delivering the packages at the rate of one per second. Also describes variety of feeds. Pak-Rapid, Inc. (G-973)

AUTOMATIC WEB GUIDE. 4-page illustrated brochure describes a guide for webs and filaments said to be flexible enough to fit any machine. Contains 7-page discussion of web control problems and their solution. Web Control Corp. (G-974)

SLITTER-REWINDERS. 4-page illustrated brochure describes lines of slitter-rewinders for film, foil, tape and paper. Units can be supplied for shear-cut, razor blade, rotary burst or score-cut type slitting. John Dusenbery Co., Inc. (G-975)

SLIDE BED BELT CONVEYORS. Series of illustrated data sheets describe standard and special unitized conveyors for the handling of products ranging from hot, greasy, or wet materials to powdered materials and glass containers. Head roller drive conveyors and conveyor table supports also described. Island Equipment Corp. (G-976)

CARTON SEALING ADHESIVES. 8-page illustrated brochure discusses problems involved in selecting the correct carton sealing adhesive. Takes up the influence of carton contents on choice of adhesives, carton sealing machines, choice of carton stock, etc. Paisley Products, Inc., Div. of Morningstar, Nicol, Inc. (G-977)

PACKAGING ART SERVICE. Illustrated brochure describes this company's services in package design, creative photography, label and sticker ideas, etc. Pontiac Graphics Corp. (G-978)

SKIN PACKAGING. Illustrated folder describes the advantages of using this company's formed plastics as containers, cushions, protectors, assembly trays, etc. for industrial packaging and material handling. Preservation Packaging, Inc. (G-979)

LETTERING INSTRUMENT. 38-page illustrated booklet describes a labor-saving instrument for lettering decals, labels, packaging designs, photographic silk screen positives, etc. Varigraph Co. (G-980)

POWER STRAPPING MACHINES. 4-page illustrated brochure describes machines capable of applying up to 1,000 straps per hr. to cartons of food, chemicals, apparel, tobacco, etc. Signode Steel Strapping Co. (G-981)

GLASSINE & GREASEPROOF PAPERS. Sample book shows white, opaque and colored protective papers for baked goods, candies, delicatessen, meats, etc. Papers also protect against rust and corrosion. The Hammersley Mfg. Co. (G-892)

LIQUID FILLING MACHINES. Illustrated brochure describes this company's lines of vacuum and gravity liquid filling machines, including foamy liquid fillers. Units are straight line, automatic and semi-automatic. Packer Machinery Corp. (G-983)

PHARMACEUTICAL PACKAGING EQUIPMENT. File folder contains illustrated data sheets describing this company's lines of table inspection, filling and counting machines; and also elevating feeders, conveyors and cottoning machines. The Lakso Co., Inc. (G-984)

FOAM MATERIAL. Brochure describes the properties, manufacture, molding and fabrication of this company's expandable polystyrene. Discusses this material's special applications in the packaging and display field. Koppers Co., Inc. (G-985)

TABLET COUNTING & FILLING MACHINE. Literature describes machine that counts tablets and capsules, and fills them into vials or bottles at speeds up to 1200 containers per hour. The Burnet Co. (G-986)

PLASTIC CONTAINERS. 4-page catalog gives prices and specifications for threaded and shell-type cellulose acetate tube containers; also for friction, snap and screw closures for these containers. Flex Products Corp. (G-987)

TAPE SEALING MACHINERY. Illustrated literature describes tape sealer for use with carton gluing equipment. Machine applies gummed tapes to top and/or bottom, and end-panels of shipping cartons. General Corrugated Machinery Co. (G-988)

PALLETS. 4-page illustrated folder describes two types of pallets: one for bag materials such as chemicals, minerals, pigments, etc.; the other for handling unit loads of cartons, packaged goods, bags, steel drums, etc. The Mead Corp. (G-989)

PACKAGING MACHINES. 4-page illustrated folder describes this company's lines of machines which utilize polyethylene in carton forming, over-wrapping, bag forming and filling operations. Package Machinery Co. (G-990)

SMALL PART COUNTER-PACKAGER. Illustrated catalog sheet describes a machine that automatically counts and packages small parts such as washers, nuts, bolts, cotter pins, etc. Details of operation shown in a schematic drawing. Interlakes Engineering Co. (G-991)

ROLLER CHAINS, SPROCKETS. 120-page catalog contains descriptions and prices for roller chains used in power transmission and conveying. Diamond Chain Co., Inc. (G-992)

PLASTIC BOXES. 16-page illustrated catalog gives prices and specifications for lines of stock hinged, telescope and slide cover, square and rectangular, round, hinged compartment, etc., plastic boxes. Bradley Industries. (G-993)

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Quality control

[Continued from page 80]

it is immediately sent through company production lines—appropriately tagged as a test run—to check on performance. All control and production personnel are alerted for the test jars to double check both performance and test results. The shipment of containers is accepted or rejected by these line checks.

In discussing acceptance specifications, note should be made that not all packagers believe in performing extensive tests to insure that suppliers have met high quality standards—most packagers believe that suppliers should be more rigid in manufacturing procedures and thus eliminate the need for in-plant checks. One major pharmaceutical packager—carrying this thinking to its logical conclusion—performs no preliminary checks on packages. In this company, packaging production-line personnel keep a wary eye on containers. If any trouble is detected, a full crew is thrown into the job of sorting out unacceptable packages—and the supplier is billed for the containers, extra labor and lost production. While this procedure may seem extreme, the packager reports that container defects necessitating such drastic action are now extremely rare, proving, he observes, that suppliers are capable of initiating their own close control measures.

Written vs. unwritten specs

While most packagers today would not think of ordering packages or materials without some type of written specifications that spell out the desired functional properties of the package and pinpoint the allowable deviations from a norm, there is a great deal of debate over whether it is possible to specify appearance factors in writing for suppliers and plant control personnel.

Many companies declare that this category of defect can only be explained to inspectors by on-the-job training.

One company that disagrees with this philosophy and has created a tight control program—based on written specifications for all defects—is Ortho Pharmaceutical Corp., a manufacturer of obstetrical and gynecological products.

Because of the medical nature of

[Continued on page 164]


B

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FIBREBOARD
PAPER PRODUCTS CORPORATION
San Francisco

Quality control

[*Continued from page 161*]

its products, this company maintains rigid control of packaging and employs a complex system of code numbers and check sheets to insure that the right product gets into the right inner package, carton and shipping case.

Roving inspectors and line personnel check each load of empty tubes, bottles, labels, cartons or cases that are brought to the line to make sure that code numbers of these packaging materials check with the product being run.

Operation manuals detail the entire packaging procedure for each product and are constantly updated by the packaging department. The manuals contain full descriptions of test procedures to be performed by permanent line and roving inspectors. Checks on both function and appearance of the package are fully detailed and are modified with every package change.

These instructions are supplemented by sample packages that illustrate limits of defects and hazards for which there are no limits. Such other visual aids are used as photographs mounted in front of permanent inspectors on tube-filling lines that show permissible variations in tube crimp and printing registry. Jigs have been made for gauging tolerances on other packaging components.

These procedures are augmented by rigid statistical inspection of incoming packages and materials.

With all systems and cross-checks, however, there always remains the problem of keeping inspectors and other quality-control personnel at peak efficiency. Leading companies agree that enthusiasm for quality control on the part of packaging supervisors is the key to continuous high performance. Yet, these companies also use further methods to maintain supervisory interest.

Ortho holds frequent meetings with inspectors and line personnel at which packaging defects are dramatically presented to point up weak points in the control system. Maxwell House believes that employees should be informed immediately of defects. Bristol-Myers uses both defective packages and its statistical charts to stress the importance of effective control. ●

Crisis: the new food law–3

[*Continued from page 95*]

tended use of his product.

Q: In view of recent adverse publicity, what are F&DA's thoughts on waxed packaging materials that directly contact a food product?

A: Well, if there is migration in this type of package, we must be satisfied that the substance which migrates is a safe one. We know some waxes are presently regarded as safe and we know that some are not regarded as safe.

Q: What position does the agency take on wrapping materials treated with anti-mycotic agents and other protective chemicals and food flavors?

A: The fact that chemicals might serve as anti-mycotic agents, or as other protective materials, or as food flavors is not the point. If they migrate to the food and are not generally recognized as safe, then they require clearance.

Q: Is ink offsetting on wrapping materials that directly contact a food product considered a matter for F&DA clearance?

A: Yes, ink offsetting on wrapping materials would become a component of the food if it migrates. Where it does, it will have to be proved safe.

Q: What are the toxic hazards of adhesives now used in fabricating packages?

A: The toxic hazards from adhesives arise, I am sure, primarily because of a need for preservatives, anti-mold substances and other ingredients of this kind in these products. The preservatives and anti-mycotics make it necessary to judge the hazards of adhesives on the facts in each case. Of course, the question of migration into the food is always of paramount importance.

Q: Are chemicals, detergents and germicides—long used to control bacteria and clean machines for manufacturing packaging materials —approved by F&DA now for use in the production of sanitary packaging materials?

A: While these substances are mostly pesticides, indicated use is not that of a pesticide on a raw agricultural commodity.

Therefore, these chemicals would not be cleared under the Miller Pesticide Amendment, but would be subject to the Food Additives Amendment if they migrate from the package to the food. ●

Reprints available

Complete 20-page reprints of this three-part series on "Crisis: The New Food Law" are now available from MODERN PACKAGING in single or quantity orders. One to 25 copies, $1 each; up to 75 additional copies, 75 cents each. For bulk orders, please ask for quotation.

Cost cutting

[*Continued from page 101*]

machine with the product in one pouch and the identifying label contained in the other.

The label carries the price and thereby solves another problem connected with these products. Previously, Dixon printed prices directly on the rubber product, which was sold loose on supermarket and variety-store counters. This pre-pricing directly on the product was found to create consumer resistance, despite the fact that the price is nominal and would not normally be thought to influence eraser sales. The new package—with the price off the product—has been strongly accepted by consumers, Dixon reports, apparently because the separate label bearing the price information can be discarded by the consumer immediately after purchase.

Dixon has carried this pricing philosophy to its other supermarket packages by printing the price on the display carton in the case of the shelf pack and putting the price on a disposable perforated extension in the hang-card package, where it can be torn off when the U-board is used for permanent storage by the consumer.

All of these packaging innovations have been enthusiastically accepted by consumers, according to Dixon officials.

Based on their proved success, they may well serve as basic examples of how to increase packaging efficiency and increase merchandising impact economically when faced with the problem of improving packaging in a hotly competitive field. ●

Sounding Board

[*Continued from page 54*]

are not consistent with all other lines within the department, thus creating an untidy appearance.

The above objections must be compared with the advantage of saving space in the particular building or department.

A straight-through line establishes a definite pace that allows us to maintain a constant line rate and thus meet our daily production quotas. It also cuts down the amount of space needed for in-process storage and it eliminates additional scheduling in planning inasmuch as it usually reduces substantially the number of separate production runs for a given item.

The one main disadvantage to a straight-through line is the fact that any particular section or machine can control the rate on the line, such as a machine breakdown or a slow operation in which the rate of speed cannot be improved. We have overcome this disadvantage by maintaining in-process stock at the various bottleneck points and feeding these stocks into the regular flow. Thus we have been maintaining a high rate of speed wherever needed.

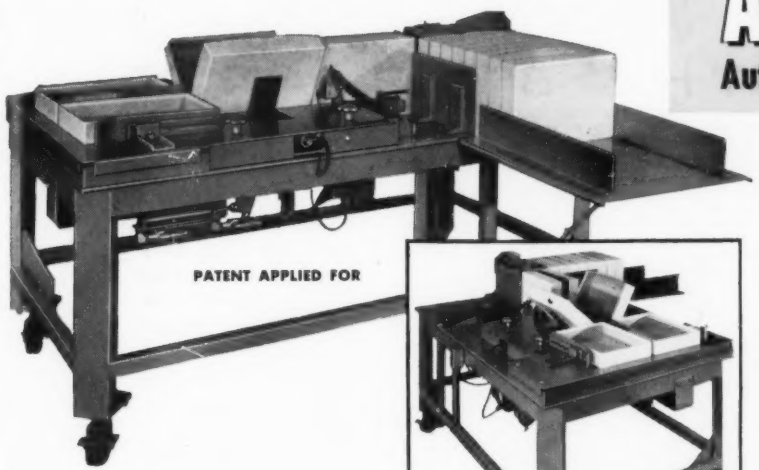
Ira L. Lay, Jr., *Vice President, T. J. Lay Packing Co., Inc.:* We consider the L-shaped line more conducive to efficiency and grouping of job responsibilities, as well as being a space saver usually.

That point from which the line takes a 90 deg. direction must be arrived at by deciding which step lends itself to a 90 deg. turn without adversely affecting the flow of the product or requiring extra personnel, and yet puts the pack-off or boxing operation in the desired location.

Since overwrapping machines still require a certain amount of observation and adjustment as well as reloading with film from time to time, we feel that merely turning the discharge of this machine at right angles permits the pack-off operator to have a clear view of her machine and to make periodic adjustments which might eliminate down time if observed and corrected in time.

Since her job does not require close scrutiny or complete concentration, we find this added responsibility does not impair her efficiency at her primary job. ●

FULLY AUTOMATIC



THE KNOWLTON AUTOCLOSE

Automatic Setup Box Closer

REDUCE COSTS INCREASE OUTPUT

The new Knowlton Autoclose is a fully automatic setup box closer that automatically accepts the output of bases and covers (or lids) from two Automatic Wrappers and combines them. It will close boxes as fast as they are delivered from the Wrappers.

The setup time is short, and the parts necessary to change over from the largest box to the smallest box cost very little.

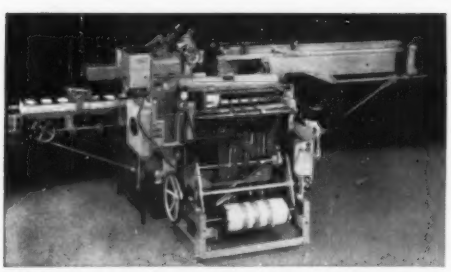
The Autoclose is controlled by air valves and cylinders exclusively. The approximate 25 lbs. of air pressure which is required is controlled by a regulator provided with the machine.

Autoclose will prove itself a cost saving addition to your Setup Box production line.

M. D. Knowlton COMPANY

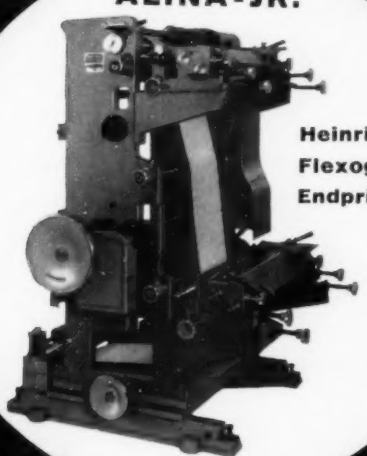
BROOKLYN 45-53 Beaver St. | CHICAGO 9 S. Clinton St. | TORONTO, CAN. 888 Dupont St.

ROCHESTER 14, N.Y.



NOW YOU CAN HAVE TOMORROW'S OVER-WRAPPING MACHINE TODAY! Battle Creek's completely new Model 475 successfully handles more than 40 different formulations of soft plastic film . . . your assurance new plastic film developments will not outdate this machine. Change of films requires only electronic heat adjustment. Size changes are made in 15 minutes. Wraps up to 75 per minute within 5" to 12" lengths, 3" to 8½" widths and ¼" to 4" heights. Choose any of these films — polyethylene (medium, low and high density 1 mil and up), polystyrenes, heat sealing cellulose acetates, heat sealing foils, polyvinyl chlorides, cellophanes, polypropylenes or polymer coated films. **Battle Creek *"Continuous Flow"* Packaging Machines, Inc., Battle Creek, Michigan.**

ALINA-JR.



Heinrich Flexographic Endprinter

for NARROW-WIDTH MATERIAL

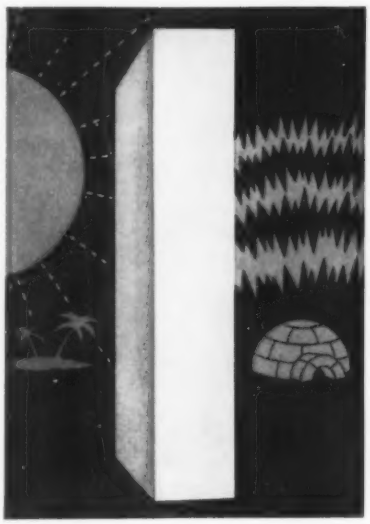
Compact, sturdy design, available for two maximum web widths . . . 16½" and 19½" with 16" and 19" maximum printing width.

Send for Bulletin 125

HEINRICH EQUIPMENT CORP.

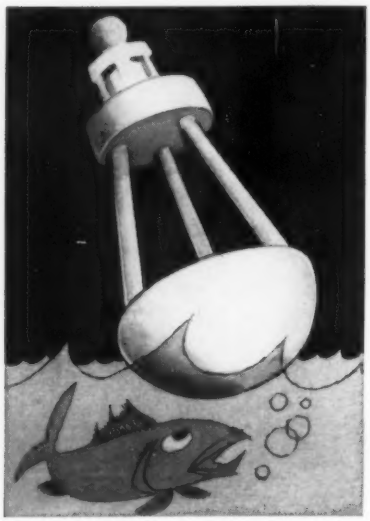
111 Eighth Avenue, New York 11, N. Y.

FIVE REASONS WHY DYLITE IS THE BEST ANSWER



DYLITE IS AN INSULATOR

DYLITE is highly resistant to the passage of heat. The Thermal Conductivity (K Factor) of DYLITE at 2 lbs./cu. ft. density is 0.242 at a 75° F. mean temperature. A dramatic example of a package that utilizes DYLITE's insulating value is this DYLITE plastic container now being used by the Howard Johnson Company to ship ice cream to the Caribbean area.

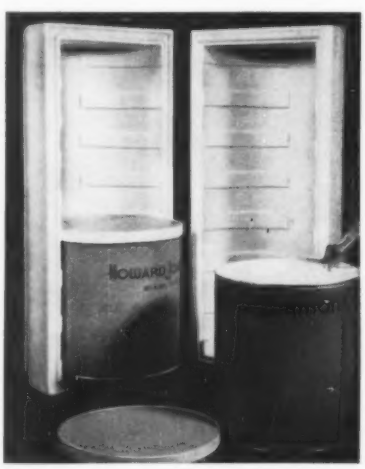


DYLITE IS WATER-RESISTANT

DYLITE's rate of Water Absorption is 0.9% by volume after 48 hours immersion (2 lbs./cu. ft. density). DYLITE's rate of Water Vapor Transmission is 1.18 perms. Proof of DYLITE's water resistance is the revolutionary Thermokup.* This throw-away cup, which insulates like a vacuum bottle, holds hot or cold beverages indefinitely without leakage.

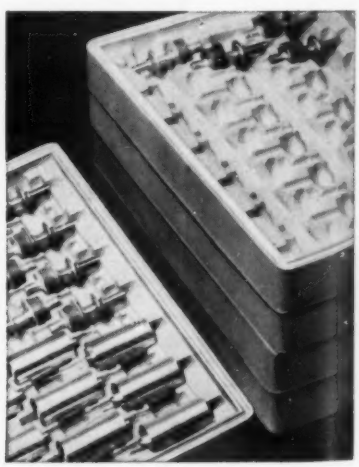
DYLITE IS SHOCK-RESISTANT

DYLITE has an Energy Absorption ratio (Maximum Load) of 56.74 in. lbs./cu. in. at a density of 2 lbs./cu. ft. RCA uses DYLITE for packaging certain types of tubes which formerly presented a complex packaging problem because of their delicate projecting parts. DYLITE solved it with a double-duty package, made so that each tray acts as a cover for the tray below.



Container supplied by: The Townsend Company, Fort Lauderdale, Florida.

Thermokup molded by: Mid-West-Pak Corporation, Belvidere, Illinois; Crown Plastic Cup Company, Fort Worth, Texas; Polychemical Industries Ltd., Edmonton, Alberta, Canada.
Patents applied for by: Crown Machine & Tool Company, Fort Worth, Texas.
**Trademark of Crown Machine & Tool Company, Fort Worth, Texas.*



Package molded by: Sullifoam Products Co. Willow Grove, Pennsylvania.

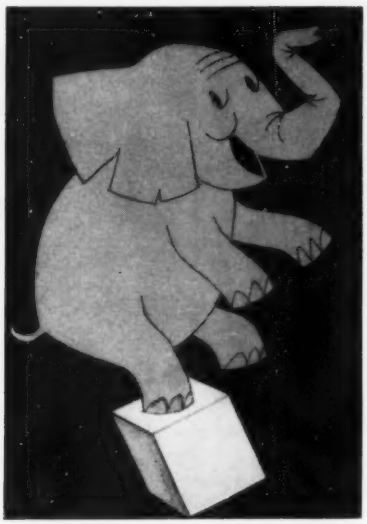
DYLITE

TO YOUR PACKAGING PROBLEMS

DYLITE IS LIGHTWEIGHT

DYLITE is lighter than cork—it can be molded in densities as low as 1 lb./cu. ft. In packaging, lightweight DYLITE helps reduce shipping costs and makes handling much easier. Notice how tight and snug the toiletries fit the DYLITE plastic tray in this Johnson & Johnson Baby Gift Set. The handy tray is removable, and can be carried about with ease.

Trays molded by: Sullifoam Products Co., Willow Grove, Pennsylvania.



DYLITE IS STRONG

A 2 lb./cu. ft. density molded DYLITE sample displays a Compressive Strength of 30 psi and a Tensile Strength of 55 psi. DYLITE's strength-to-weight ratio is excellent. Royal Electric Typewriters are now packaged and shipped in DYLITE foam cocoons. Although each typewriter weighs 47 pounds, the 3½ pound DYLITE cocoon offers complete protection.

Package molded by: Worcester Moulded Plastics, Worcester, Massachusetts.

EASE OF PROCESSING

In addition to the five outstanding properties, DYLITE is easy to handle and use because it is produced and sold in the form of small, dense beads; about the size of granules of sugar.

It can be molded into intricate shapes of uniform density to firmly cradle the packaged product. DYLITE can be painted, wrapped and decorated with a number of materials including decals, flock and sequins to provide a package with extra sales appeal.

Like to learn more about DYLITE?

If you'd like more information about DYLITE expandable polystyrene, and how it may help you answer your packaging problems, write Koppers Company, Inc., Plastics Division, Dept. MPG-79, Pittsburgh 19, Pennsylvania.

DYLITE is a registered trademark of Koppers Company, Inc.

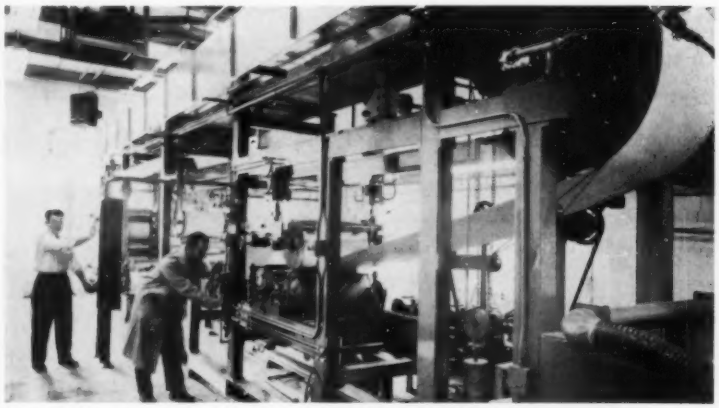
DYLENE® polystyrene, SUPER DYLAN® polyethylene and DYLAN® polyethylene are other fine plastics produced by Koppers Company, Inc.

Offices in Principal Cities • In Canada: Dominion Anilines and Chemicals Ltd., Toronto, Ontario

KOPPERS PLASTICS

KOPPERS

New paper coater simulates mill conditions



Technician adjusts coating unit on National Starch's experimental equipment.

A 45-foot experimental paper coater, reported to be the first owned and operated by a starch and resin producer or supplier to the coating industry, has recently been installed at the Plainfield, N. J., headquarters of the National Starch and Chemical Corp.

The machine will be used primarily for research but it is also available for specific customer service jobs. "Theoretically-best" formulations can now be tested under simulated mill conditions.

The equipment will coat or size, dry and calendar paper stock at speeds up to 2,000 ft. per min., although it is designed to run up to 3,500 ft. per min. It will accommodate paper and paperboard from 6 to 22 in. wide.

The coater will handle all six major types of coating and sizing processes, including air knife, trailing blade, roll, reverse roll, size press and modified size press. Still to be added are rolls for gravure and offset gravure coating. ●

Packaging School at MSU builds itself a new lab

Michigan State University's School of Packaging hopes some day to move into a new home on the university's East Lansing campus as

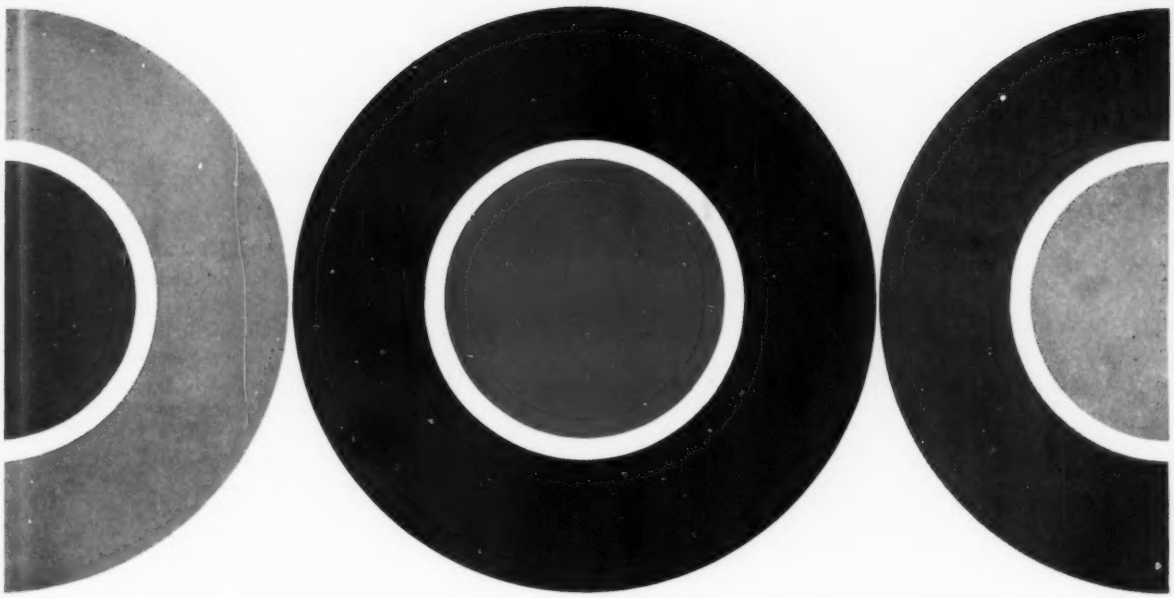
Students remodel MSU building for its School of Packaging lab.

the result of a current $2,000,000 fund drive to build and equip such a structure. But meanwhile, living in the shadow of financial troubles threatening the entire state, the school's 110 students, two graduate assistants and two faculty members are more than happy to occupy a temporary lab even if they had to remodel most of the building themselves.

And that's just what they've been doing for the past several months since a Quonset classroom structure became available a block away from an old seed-experiment building that the school has occupied since it opened in 1953.

Their ingenuity was challenged when the university's maintenance budget was unable to pay the $12,000 tab for remodeling what had been an arts building. With graduate assistant Hugh E. Lockhart working on plans, the student body volunteered its services through its Packaging Society and a new honorary society, Pi Kappa Gamma (PKG). Drs. James W. Goff and Harold J. Raphael pitched in on a construction schedule that avoided serious interruption of classwork.

Wielding hammers, saws and



A Packaging Decision Can Change the Course of a Business

Looking for a new package design or packaging material? Olin Mathieson's Packaging Division is ready to work with you to create packages that ship better, sell better.

The Packaging Division manufactures Olin Cellophane and Olin Polyethylene, Frostkraft paper and paperboard, corrugated shipping containers, multiwall sacks, grocery bags and folding cartons. Also Ecusta cigarette paper, light-weight printing and specialty papers. Call in an Olin Mathieson representative today.

OLIN MATHIESON PACKAGING DIVISION

Olin Cellophane, N. Y. 21, N. Y. • Frostkraft Products, West Monroe, La. • Ecusta Papers, Pisgah Forest, N. C.

Olin Frostkraft Ecusta

paint brushes and hauling heavy machinery by truck, all in their spare time, work groups of students and faculty members constructed and painted rooms for chemical, physical and conditioned testing as well as for rough handling and to house production equipment. Additional space has been partitioned into offices for the staff and graduate assistants. The job has been completed at little cost to Michigan taxpayers. ●

Aerosol leak detector

For rapid and accurate detection of leaks in its paint-filled aerosol cans, a Chicago paint packager is using a mechanized hot-water bath that shows up defective containers by creating a conspicuous trail of bubbles from any faulty can.

The packager, the Illinois Bronze Powder Co., has installed a long, open-top tank in which travel twin stainless-steel chain-belt conveyors. About 40 aerosol units are immersed at one time as the belts dip into the water at one end and emerge at the other. Although running at speeds of 80 per min., the cans remain upright and in place from the force of non-electric magnetic rails positioned beneath each conveyor. No guide rails are required, permitting inspection of cans of almost any size. In operation, an employee merely plucks any suspicious can from the moving line for inspection or removal.

SUPPLIES AND SERVICES: "Magna-Rails" by Eriez Mfg. Co., Erie, Pa.

Packaging engineer

[*Continued from page 110*]

employees, efficiency and limitations as well as the effectiveness of each training session. The reports were not circulated below the executive packaging level, to prevent other packaging men who might visit the same suppliers from borrowing information. However, the possibility of converting these reports into a packaging manual for the department is now under discussion.

The trainees found that the most effective teaching technique was for suppliers to show films or slides detailing various applications of their packages or machines, then take the

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with Brilliance Beauty Strength

THE CHAMPION PAPER AND FIBRE COMPANY, Hamilton, Ohio

men into the plant for first-hand explanations of manufacturing techniques.

The third phase of the program is now in action—monthly seminars and occasional trips to suppliers to keep the whole packaging department up to date on new developments in the field. The first seminar heard a prominent designer. Other meetings in the near future will give package and machinery suppliers a chance to explain their products. Members of Squibb's own packaging department who have specialized knowledge will be called upon to share it with the others. Only two rules govern these meetings: (1) they are conducted on an informal basis with plenty of give and take from everyone in attendance and (2) all department members are required to write interpretive reports on the meetings to insure their close attention during the session.

Every new program must be evaluated and Squibb packaging officials have spent considerable time estimating the effectiveness of their initial training effort.

These executives readily admit that the prior training, engineering experience and intelligence of the two trainees selected for packaging indoctrination may explain its success. They are debating, at this point, whether it would be better to send subsequent trainees to one type of supplier and bring them back to work on problems connected with this specific package or machine before sending them out to another vendor. It is recognized that the present program may suffer from too great a lapse between training and application and may push too much information at the average trainee for him to absorb in a limited time.

Also, some future trainees may be earmarked for an entirely different type of work in the department—which would necessitate a different program of indoctrination and different field trips.

On one point, though, both department executives are unanimous: Measured by the level of knowledge attained by the two engineers in their brief training period, the initial program has been successful and economical. This may encourage other packagers to look into this training technique as a means of raising the efficiency of their own technical packaging departments. ●

Capsule facts for packaging suppliers about

MODERN PACKAGING ENCYCLOPEDIA ISSUE for 1960

Now accepting space reservations for next edition!

(to be published November, 1959)

What it is The thirty-first edition of the *only* standard annual manual on packaging principles, procedures, techniques, materials, container types and equipment.

What's in it More than 800 pages. One hundred thirty-nine "how to" articles including many new features on materials, equipment, packaging production techniques and merchandising strategy. Charts. Tables. Graphs. Check lists. 100-page Buyers' Directory. Detailed information on the planning, designing, selection, production and filling of packages. "Tell-all" advertising by packaging suppliers. Review of all packaging developments during previous twelve months.

What is its "life span" One year. Because of the fast-moving nature of packaging developments, each new edition contains a considerable body of entirely new material that supersedes the content of the previous issue . . . and remains the standard reference work until it, in turn, is made obsolete by the next.

Who gets it The full, record-high, paid circulation of *Modern Packaging* magazine. (Publisher's estimate for November: 23,000.)

Who are these subscribers The key packaging men in the major industries (food, drugs, chemicals, paints, beverages, cosmetics, etc.) that produce the vast bulk of the country's packaged products.

How they use the book a) To get *completely current* working data on every phase of packaging—as problems occur in their day-to-day packaging work . . . b) To check sources of supply . . . to find out what's available . . . or what's *alternative* . . . c) To select *new* or *alternative* ways of packaging products.

Evidence of intensive use In first five months after publication of last edition, fifteen thousand requests from readers were received for the various pieces of product literature reviewed in the issue. These requests continue to be received at a steady weekly rate during the "life span" of the issue.

Who advertises in it Just about all packaging suppliers. Each annual edition carries more advertising to packagers than any other publication anywhere on earth.

What kind of advertising works Only one kind: "catalog-type" advertising that gives full and detailed particulars about your products and services. Almost any other kind of advertising message belongs in the regular monthly issues of the magazine. Use Encyclopedia space to "wrap up" your product's complete sales story with enough facts to enable a buying decision to be made.

When is advertising material due Copy requiring proofs is needed by August 1. Complete plates by August 8. Catalog inserts by August 28.

How to position your ad Each advertiser can select the editorial section that "ties in" with the subject matter of his advertisement.

When should space order be placed The earlier the better since advertising is given placement preference within each editorial section on the basis of time of receipt of order. An urgent suggestion: mail your order in *now*. We'll send you promptly an Advertising Position Sheet on which you can indicate the specific editorial section in which you wish your advertisement to appear. MODERN PACKAGING, 575 Madison Avenue, New York 22, New York.

Classified Advertisements

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Business Opportunities
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Machinery and Equipment For Sale

FOR SALE—MODERN PACKAGING AND FOOD PROCESSING MACHINERY—Penumatic Scale Automatic Carton Feeder, Bottom Sealers, Wax Liners and Top Sealing Units with interconnecting conveyors. Pneumatic Scale Tite Wrap Machine and Large Liner. Transwrap Machines. Jones Model CMV highly flexible Automatic Cartoner. Scandia Model SFS6F high speed automatic wrappers with electric eyes. Ceco Model A 3901-12 Cartoning Machine. All size Hayssen Wrappers. Package Machinery Models FA, FF, FA2, FA3 and FA4 Wrappers with and without electric eyes. Wright Automatic Bagging Unit. Battle Creek Model 47B Wrapper. Package Machinery Model PA (Palmer) machines. Fillers, labelers, cappers, mixers, grinders. Complete details and prices available on request. Union Standard Equipment Company, 318 Lafayette Street, New York 12, N. Y. Phone: CAnal 6-5334.

FOR SALE—USED 12-LINE STRAIGHT Line Model SL 55 "Geyer" Heavy Duty Piston Filler for any semi-liquid or semi-solid product. Will handle cans or glass containers. Range of sizes: 4 fluid oz. to 16 fluid oz. Speeds: 180 to 220 containers per minute. With or without separate motor driven agitator. Reasonably priced. Reply Box 1090, Modern Packaging.

FOR SALE—1 ROTO PACEMAKER: Inline polyethylene 2-color printer and bag maker. For details contact Durapak Mfg. Co., Baltimore 30, Md.

FOR SALE—MARKEM MODEL 45 AG offset printing machine bench mounted. Excellent condition. Can be seen in operation. Completely equipped with reservoir, transfer pad, 110 V. 60 cycle, single phase motor and switch. Valley Forge Products, Inc., 370-19th St., Brooklyn, N.Y. HY. 9-6000, Mr. Harris.

FOR SALE—2 CUSTOM MADE side weld bag machines, maximum width of bag 24", maximum length of bag 24". Will make bottom gusset, flip-close, offset lip. One equipped with electric eye. One for plain bags. Will handle tubing or sheeting. Machines can be seen in production every day. Clear Bag Co., 137 East Island Ave., Minneapolis, Minn.

FOR SALE—TWO PACKAGE MACHINERY Model FA Cello Overwrap machines in excellent operating condition. Especially effective on flat packages. Reply Box 1095, Modern Packaging.

Materials Wanted

WANTED—POLYETHYLENE, ACETATE, butyrate and other plastic scrap. **CLAUDE P. BAMBERGER, INC.**, Ridgefield Park, N.J. HUbbard 9-5330.

Help Wanted

MECHANICAL ENGINEERS—The Equipment Engineering Section of the West Virginia Pulp and Paper Company has immediate openings for Senior Project Engineers with a degree in engineering. Experience in corrugating machinery or bag machinery is desirable. These positions require versatility, creativity and a high degree of mechanical ability to do responsible project engineering work and to supervise Junior Project Engineers. Willingness to travel between equipment manufacturers and plants is essential. Salaries open. Send complete resume in confidence to: Research Director, West Virginia Pulp and Paper Company, Covington, Virg.

PACKAGING ENGINEER—We are an expanding midwestern drug firm with an immediate opening for an individual who will design, develop, and test packages. Contacts within company and with suppliers will be extensive. Should have degree in mechanical or package engineering or equivalent, and experience with paperboard, corrugated board, plastic, and glass. Liberal benefits including life, medical, hospital, and travel insurance, pension and stock option plan. Salary commensurate with background and qualifications. Please reply with a resume, including present and desired salary to Box 1091, Modern Packaging.

SALES REPRESENTATIVE WANTED—Areas open for plastic machinery representatives to sell a complete line of leading blow-molding machines and auxiliary equipment. In reply please outline the geographic area and company affiliations your current activities cover. Reply Box 1094, Modern Packaging.

NEW PRODUCTS! THE MEAD CORPORATION LABORATORIES have staff positions open for technically trained men who are interested in New Products Research and Development for the paper industry. If you are product-minded, creative, with interests or experience in plastics, resins, and new types of paper and board, you should consider this advertisement seriously. We offer opportunity for recognition and growth with friendly working and living conditions. Location Chillicothe, a pleasant town of 28,000 in southern Ohio. Your inquiry with full resume will receive immediate confidential attention. Write to: Hugh D. Meilinger, Technical Employment Supervisor, The Mead Corporation, Chillicothe, Ohio.

PACKAGE AND CONTAINER SALES representative to develop sales nationally in the field of large plastic molded containers, such as drums, carboys, large cans, and boxes. Exclusive new developments in manufacturing processes and equipment will assist toward creating volume sales. Representation desired in East, Midwest, West and South. Complete background and experience necessary to allow consideration. Eclipse Plastic Industries, Inc., P. O. Box 430, Sarasota, Florida.

PACKAGING SALES ENGINEER—A challenge in the new Pak-N-Foam system. An opportunity for a packaging engineer to set up and develop a completely new department adequately supported by a research and technical department. This system involves the application of foamed-in-place urethane to packaging in a very practical method which will be thoroughly covered by patents. This is a challenging opportunity to get in at the beginning of a very new approach to packaging with backing by an aggressive and well established company engaged in the manufacture and development of synthetic resins. This is a subsidiary of the H. H. Robertson Co. Please address replies to the Freeman Chemical Corporation, Attention: Ralph Schulz, 211 E. Main St., Port Washington, Wis.

PACKAGING PERSONNEL
Positions Filled and Secured. A confidential Nationwide Service for employers seeking personnel and individuals seeking new positions. Inquiries invited. Reply to Graphic Arts Employment Service, Est. 1952. Helen M. Winters, Manager; Dept. PAC-7, 307 East 4th Street, Cincinnati 2, Ohio. Phone CHerry 1-2201.

PACKAGING ENGINEER—Housewares and small appliances. Experienced packaging engineer in the field of housewares, or small appliances—to develop new consumer products, with special emphasis on new packaging of Pyrex brand housewares products. Produces preproduction quantities for market testing. Apply Mgr. Technical Employment, Corning Glass Works, Corning, N.Y.

Situations Wanted

MANUFACTURERS REPRESENTATIVE—15 years sales experience. Interested in packaging lines for New England area. Send reply to Box 1093, Modern Packaging.

ESTABLISHED CHICAGO MANUFACTURER'S representative, twenty years selling experience in metal, foil, corrugated board, paper specialties, plastic fields, interested additional line of merit. Good connections better food processors, wholesale bakeries, cookie, industrial accounts, plus paper jobbers this city. Capable developing volume sales thru creative ability and know how in presenting your product to the right people. Write Box 1092, Modern Packaging.

RATES FOR CLASSIFIED ADVERTISING

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Closing date: 26th of second preceding month, e.g., July 26th for September issue.
Per inch (or fraction) ..... $30.00. Each 3 inches or fraction (boxed) $15.00 extra.
Situation Wanted ads ..... 1/3 of above rates.

For purpose of establishing rate, figure approximately 50-55 words per inch.
Address all communications to Classified Advertising Department,
Modern Packaging, 575 Madison Avenue, N. Y. 22, N. Y.

Modern Packaging reserves the right to accept, reject or censor classified copy.

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Diederichs & Griffin Co.
310 Fifth St. N.E.

Charlotte, North Carolina
The Ison Co.
1232 W. Morehead St.

Chicago, Illinois
Diederichs & Griffin Co.
6215 W. Touhy Ave.

Cincinnati, Ohio
Charles Wall
8955 Woodview Drive

Dallas, Texas
R. P. Anderson Co.
2503 W. Mockingbird Lane

Denver 1, Colorado
Advance Packaging Machinery Co.
Box 594

Detroit, Michigan
Diederichs & Griffin Co.
2591 W. Grand Boulevard

Haddonfield, N. J. (Philadelphia)
William B. Sanford, Inc.
115 No. Brookfield Road

Houston, Texas
R. P. Anderson Co.
4101 San Jacinto St.

Kansas City, Missouri
Turner Industrial Products
207 W. 31st St.
(also St. Louis)

Los Angeles, California
Watts King Co.
3404 No. Figueroa St.

Miami, Florida
Stiles Conveyors & Transmissions Co.
596 N.W. 54th St.

Needham, Massachusetts (Boston)
J. A. Wood
853 Great Plains Ave.

New Orleans, Louisiana
R. P. Anderson Co.
201 Board of Trade Annex

New Richmond, Wisconsin
(St. Paul - Minneapolis Area)
Doughboy Industries, Inc.

New York, New York
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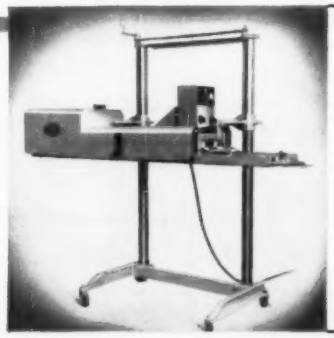

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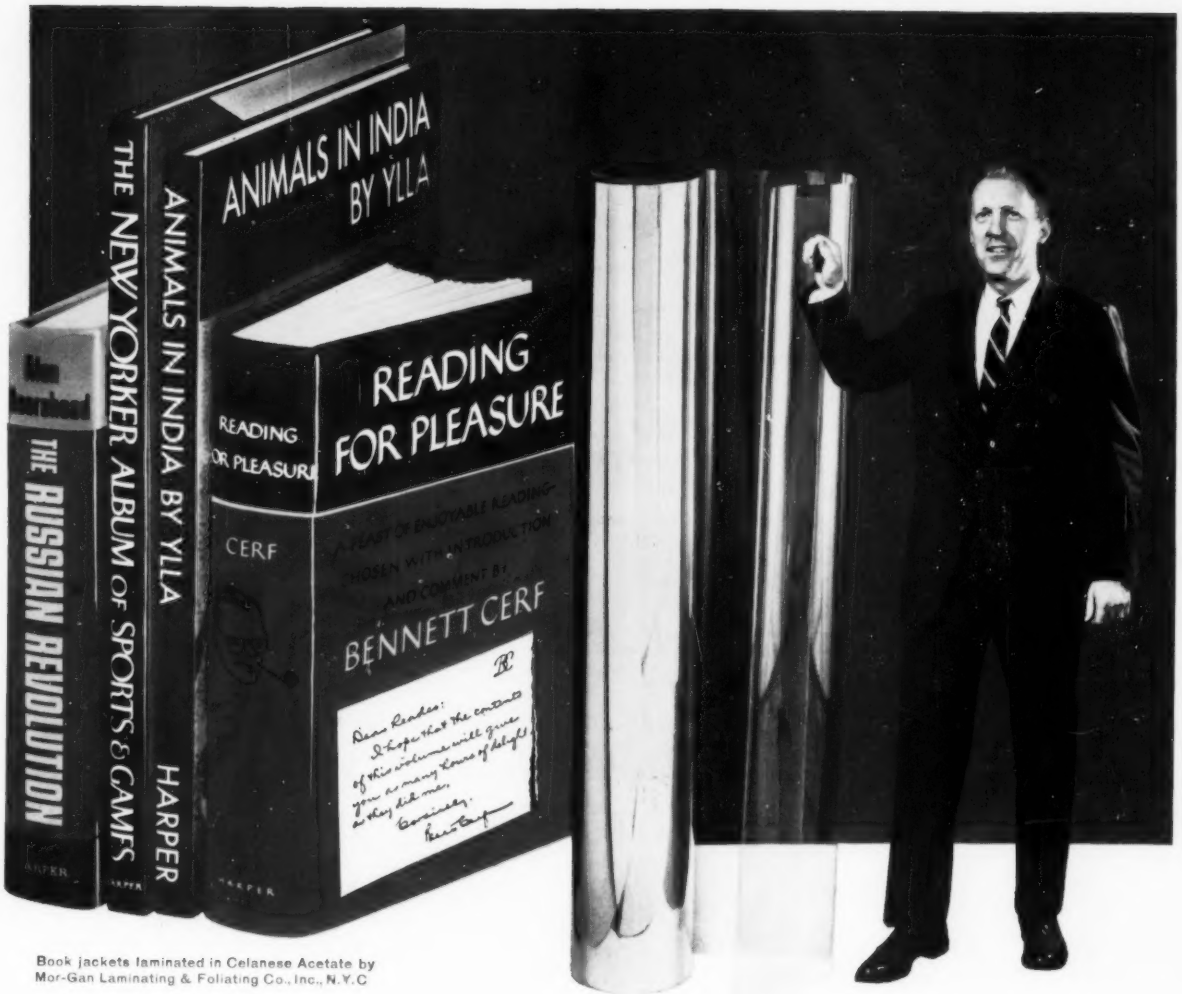

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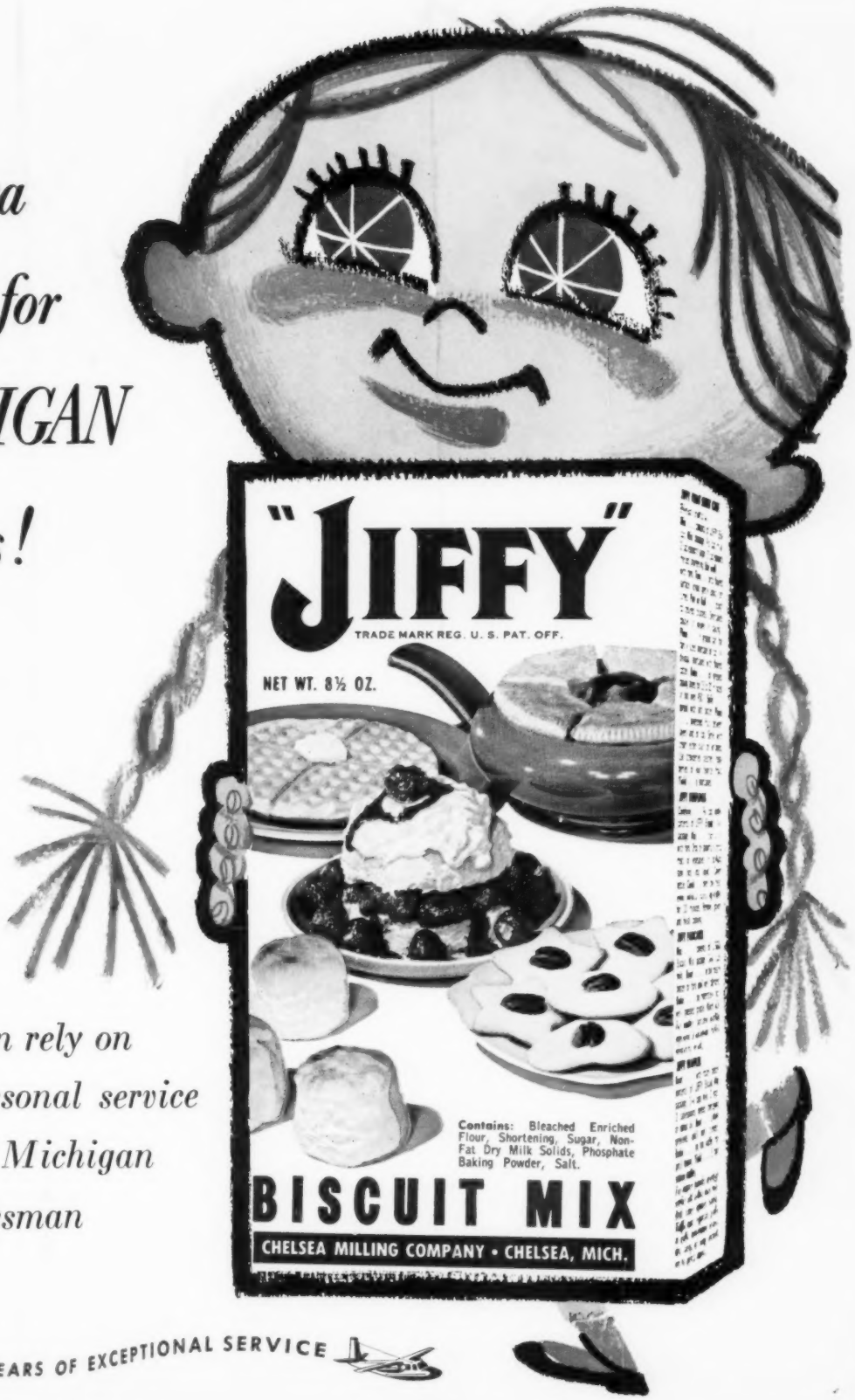

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